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NEWS	2	AUG 10	Time limit for inactive STN sessions doubles to 40 minutes
NEWS	3	AUG 18	COMPENDEX indexing changed for the Corporate Source (CS) field
NEWS	4	AUG 24	ENCOMPLIT/ENCOMPLIT2 reloaded and enhanced
NEWS	5	AUG 24	CA/Caplus enhanced with legal status information for U.S. patents
NEWS	6	SEP 09	50 Millionth Unique Chemical Substance Recorded in CAS REGISTRY
NEWS	7	SEP 11	WPIDS, WPINDEX, and WPIX now include Japanese FTERM thesaurus
NEWS	8	OCT 21	Derwent World Patents Index Coverage of Indian and Taiwanese Content Expanded
NEWS	9	OCT 21	Derwent World Patents Index enhanced with human translated claims for Chinese Applications and Utility Models
NEWS	10	NOV 23	Addition of SCAN format to selected STN databases
NEWS	11	NOV 23	Annual Reload of IFI Databases
NEWS	12	DEC 01	FRFULL Content and Search Enhancements
NEWS	13	DEC 01	DGENE, USGENE, and PCTGEN: new percent identity feature for sorting BLAST answer sets
NEWS	14	DEC 02	Derwent World Patent Index: Japanese FI-TERM thesaurus added
NEWS	15	DEC 02	PCTGEN enhanced with patent family and legal status display data from INPADOCDB
NEWS	16	DEC 02	USGENE: Enhanced coverage of bibliographic and sequence information
NEWS	17	DEC 21	New Indicator Identifies Multiple Basic Patent Records Containing Equivalent Chemical Indexing in CA/Caplus

NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4,  
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STRUCTURE FILE UPDATES: 4 JAN 2010 HIGHEST RN 1200403-72-0

DICTIONARY FILE UPDATES: 4 JAN 2010 HIGHEST RN 1200403-72-0

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TSCA INFORMATION NOW CURRENT THROUGH June 26, 2009.

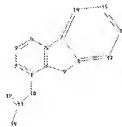
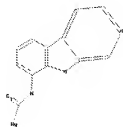
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=>

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chain nodes :
10 11 12 19
ring nodes :
1 2 3 4 5 6 7 8 9 14 15 16 17
chain bonds :
1-10 10-11 11-12 11-19
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 7-14 8-9 8-17 14-15 15-16 16-17

exact/norm bonds :
1-10 6-9 8-9 10-11 11-12 11-19
exact bonds :
5-7
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-14 8-17 14-15 15-16 16-17
isolated ring systems :
containing 1 :

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G1:O,S

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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 12:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 19:Atom

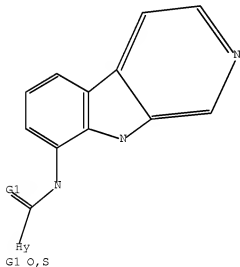
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L1 STRUCTURE UPLOADED

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L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s L1 SSS full

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FULL SEARCH INITIATED 11:25:23 FILE 'REGISTRY'  
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L2 445 SEA SSS FUL L1

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FILE 'CAPLUS' ENTERED AT 11:25:29 ON 05 JAN 2010  
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FILE COVERS 1907 - 5 Jan 2010 VOL 152 ISS 2  
FILE LAST UPDATED: 4 Jan 2010 (20100104/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2009

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s L2 SSS full  
L3 44 L2

=> d ibib abs hitstr 1-  
YOU HAVE REQUESTED DATA FROM 44 ANSWERS - CONTINUE? Y/(N):y

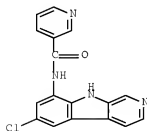
L3 ANSWER 1 OF 44 CAPLUS COPYRIGHT 2010 ACS ON STN  
ACCESSION NUMBER: 2009:901979 CAPLUS Full-text  
DOCUMENT NUMBER: 151:417661  
TITLE: Targeting transcription factor NFkB: Comparative analysis of proteasome and IKK inhibitors  
AUTHOR(S): Gasparian, Alexander V.; Guryanova, Olga A.; Chebotaev, Dmitry V.; Shishkin, Alexander A.; Yemelyanov, Alexander Y.; Budunova, Irina V.



CORPORATE SOURCE: Cleveland Biolabs, Inc., Buffalo, NY, USA  
 SOURCE: Cell Cycle (2009), 8(10), 1559-1566  
 CODEN: CCEYAS; ISSN: 1538-4101  
 PUBLISHER: Landes Bioscience  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Nuclear factor $\kappa$ B (NF $\kappa$ B) plays a critical role in cancer development and progression. Thus, the NF $\kappa$ B signaling pathway provides important targets for cancer chemoprevention and anticancer chemotherapy. The central steps in NF $\kappa$ B activation are phosphorylation and proteasome-dependent degradation of its inhibitory proteins termed I $\kappa$ Bs. Consequently, the major pharmacol. approaches to target NF $\kappa$ B include repression of I $\kappa$ B kinases (IKKs) and blocking the degradation of I $\kappa$ Bs by proteasome inhibitors. The authors quant. compared the efficacy of various proteasome inhibitors (MG132, lactacystin and epoxomicin) and IKK inhibitors (BAY 11-7082 and PS1145) to block NF $\kappa$ B activity induced by TNF $\alpha$  or TPA and to sensitize LNCaP prostate carcinoma cells to apoptosis. The authors' studies revealed significant differences between these two classes of NF $\kappa$ B inhibitors. The authors found that proteasome inhibitors epoxomicin and MG132 attenuated NF $\kappa$ B induction much more effectively than the IKK inhibitors. Furthermore, in contrast to IKK inhibitors, all studied proteasome inhibitors specifically blocked TPA-induced generation de novo of NF $\kappa$ B p50 homodimers-(p50/p50). These results suggest that the proteasome plays a dominant role in TPA-induced formation of functional p50 homodimers, while IKK activity is less important for this process. Interestingly, profound attenuation of p50/p50 DNA-binding does not reduce the high potency of proteasome inhibitors to suppress NF $\kappa$ B-dependent transcription. Finally, proteasome inhibitors were much more effective in sensitizing LNCaP cells to TNF $\alpha$ -induced apoptosis compared to IKK inhibitors at the concns. when both types of agents similarly attenuated NF $\kappa$ B activity. The authors conclude that this remarkable pro-apoptotic potential of proteasome inhibitors is partially mediated through NF $\kappa$ B-independent mechanism.

IT 431898-65-6, PS1145  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (effects of proteasome and IKK inhibitors on transcription factor NF $\kappa$ B activity and relation to LNCaP sensitization)  
 RN 431898-65-6 CAPLUS  
 CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2009:649786 CAPLUS Full-text  
 DOCUMENT NUMBER: 150:564026  
 TITLE: Preparation of beta carbolines as IKK-2 inhibitors  
 INVENTOR(S): Elder, Amy M.; Ghosh, Shomir; Harrison, Sean J.;  
 Hepperle, Michael E.; Liu, Julie Fields; Murray,  
 Robert S.; Renou, Christelle C.; Reynolds, Dominic  
 PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA  
 SOURCE: PCT Int. Appl., 125pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009067233	A1	20090528	WO 2008-US12966	20081120
W:	AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
PRIORITY APPLN. INFO.:			US 2007-3777P	P 20071120
OTHER SOURCE(S):	MARPAT 150:564026			
GI				

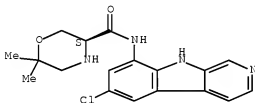
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB This invention provides beta-carboline compds. of formula [I; R1 = H, halo, C1-3 aliphatic, amino, cyano, mono- or di(C1-3 alkyl)amino, C1-3 alkoxy, CONH2, NHCOCF3, CH2NH2; R2 = H, halo, C1-4 aliphatic, C1-2 alkoxy, C1-2 haloalkyl; R3 = H, halo, C1-6 aliphatic, C1-6 alkoxy, C1-6 alkylthio, C1-6 haloalkyl, HO, NH2, cyano, mono- or di(C1-6alkyl)amino; R4 = (un)substituted C1-6 aliphatic, etc.; x = 0-4; G = (un)substituted C1-3 alkyl; R5 = Q, Q1, Q2, Q3, Q4; X = (un)substituted NH, O, S; n = 1-3; m = 0-6; R6 = oxo, R8, T-R8, or V-T-R8, etc.; R8 = halo, OR8a, cyano, SR8a, S(O)2R8a, S(O)R8a, C(O)R8a, CO2R8a, N(R8a)2, C(O)N(R8a)2, N(R8a)C(O)R8a, N(R8a)CO2R8a, etc.; T = (un)substituted straight or branched C1-6 alkylene; V = O, S, S(O), S(O)2, C(O), CO2, each (un)substituted NH, C(O)NH, NHC(O), NHC(O)2, or S(O)2NH, etc.; R8a = H, each (un)substituted C1-6 aliphatic, aryl, heteroaryl, heterocyclyl, or carbocyclyl; R7 = H, R9, Q-R10, or W-Q-R10, etc.; R9 = S(O)2R9b, S(O)R9b, C(O)R9b, CO2R9b, C(O)N(R9a)2, S(O)2N(R9a)2, etc.; Q = (un)substituted straight or branched C1-6alkylene chain; W = S(O), S(O)2, C(O), CO2, each (un)substituted C(O)NH or S(O)2NH; R9a = H, R9b; R9b = each (un)substituted C1-6 aliphatic, aryl, heteroaryl, heterocyclyl, or carbocyclyl or pharmaceutically acceptable salts thereof were prepared The compds. are useful for treating cancer and inflammatory disorders, and immune-related diseases. Thus, 0.369 g (3S)-5-(6-chloro-9H-pyrido[3,4-b]indol-8-

ylcarbamoyl)-2,2-dimethylmorpholine-4-carboxylic acid tert-Bu ester was dissolved in 2.00 mL MeOH, cooled to 0°, treated with 4.0 M HCl/dioxane (2.00 mL), and stirred for 15 min before removing the ice bath and then at room temperature for 1 h to give (3S)-5-(6-chloro-9H-pyrido[3,4-b]indol-8-ylcarbamoyl)-2,2-dimethylmorpholine hydrochloride (II) as a yellow powder. II was dissolved in 4.0 mL MeOH, treated with 98 mg 1-ethyl-1H-imidazole-2-carboxaldehyde and then with 50 mg sodium cyanoborohydride, and the resulting suspension was stirred at room temperature for 3 h to give (3S)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-ethyl-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide triformate which was converted into (3S)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-ethyl-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride (III). The IKK kinase inhibition average IC50 values for the inventive compds. I were generally below .apprx.10 µM.

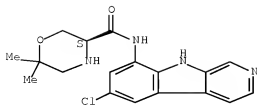
IT 783349-90-6P, (S)-5-[(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)carbamoyl]-2,2-dimethylmorpholine 1157075-92-7P,  
 (3S)-5-[(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)carbamoyl]-2,2-dimethylmorpholine hydrochloride 1157076-02-2P,  
 (3S)-5-[(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)carbamoyl]-2,2-dimethylmorpholine trifluoroacetate 1157076-09-9P,  
 (3S)-3-[[[(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]morpholine trifluoroacetate  
 RL: PRPH (Prophetic); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate; preparation of beta carbolines as IKK-2 inhibitors for treating cancer and inflammatory disorders, and immune-related diseases)  
 RN 783349-90-6 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 1157075-92-7 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, hydrochloride (1:?), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



●x HCl

RN 1157076-02-2 CAPLUS

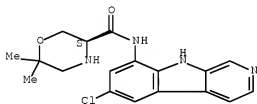
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)-, 2,2,2-trifluoroacetate (1:?) (CA INDEX NAME)

CM 1

CRN 783349-90-6

CMF C18 H19 Cl N4 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 1157076-09-9 CAPLUS

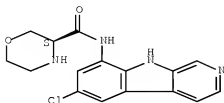
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, (3S)-, 2,2,2-trifluoroacetate (1:?) (CA INDEX NAME)

CM 1

CRN 1157076-08-8

CMF C16 H15 Cl N4 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



IT 783349-81-5P, (3S)-4-((2S)-2-Aminopropyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethylmorpholine-3-carboxamide tris(trifluoroacetate) 1157076-72-6P 1157077-26-3P, (3S)-4-(2-Aminoethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethylmorpholine-3-carboxamide tris(trifluoroacetate)  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; preparation of beta carbolines as IKK-2 inhibitors for treating cancer and inflammatory disorders, and immune-related diseases)

RN 783349-81-5 CAPLUS

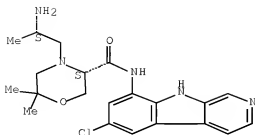
CN 3-Morpholinecarboxamide, 4-[(2S)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 783349-80-4

CMF C21 H26 Cl N5 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1

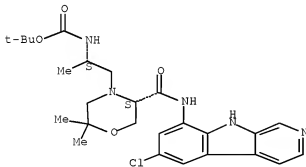
CMF C2 H F3 O2



RN 1157076-72-6 CAPLUS

CN Carbamic acid, N-[(1S)-2-[(5S)-5-[[ (6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]-1-methylethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 1157077-26-3 CAPLUS

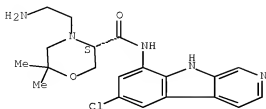
CN 3-Morpholinecarboxamide, 4-(2-aminoethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 1157077-25-2

CMF C20 H24 Cl N5 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



IT 1157075-93-3P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-ethyl-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide  
1157075-94-9P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-ethyl-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide trihydrate 1157075-97-2P,  
(3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-ethyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide  
tris(trifluoroacetate) 1157076-03-3P,  
(3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(4-methyl-4,5-dihydro-1,3-oxazol-2-yl)methyl]morpholine-3-carboxamide  
1157076-12-4P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(6,8-diazaspiro[3.5]non-6-en-7-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide 1157076-18-0P,  
(3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(5,6,7,8-tetrahydroimidazo[1,5-a]pyridin-3-yl)methyl]morpholine-3-carboxamide  
1157076-19-1P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(5,6,7,8-tetrahydroimidazo[1,5-a]pyridin-3-yl)methyl]morpholine-3-carboxamide formate 1157076-34-0P,  
(3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(dimethylamino)-2-iminoethyl]-6,6-dimethylmorpholine-3-carboxamide 1157076-40-8P,  
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1157076-43-1P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1,5,6,7,8,8a-hexahydroimidazo[1,5-a]pyridin-3-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide 1157076-50-0P,  
(3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[[1-(2,2,2-trifluoroethyl)-1H-imidazol-2-yl)methyl]morpholine-3-carboxamide  
1157076-82-8P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1,3-oxazol-5-yl)methyl]morpholine-3-carboxamide

1157076-85-1P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1,4,5,6-tetrahydropyrimidin-2-yl)methyl]morpholine-3-carboxamide 1157077-31-0P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4-isopropyl-4,5-dihydro-1,3-oxazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide  
 1157077-35-4P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(4-phenyl-5,6-dihydro-4H-1,3-oxazin-2-yl)methyl]morpholine-3-carboxamide 1157077-49-0P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(2-(dimethylamino)-2-oxoethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-50-2P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(2,2-difluoroethyl)-4,4-dimethyl-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-51-4P, Methyl  
 2-[[[(5S)-5-[[1-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethylmorpholin-4-yl]methyl]-4,5-dihydro-1H-imidazole-5-carboxylate 1157077-52-5P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(5,6,8a-tetrahydro-1H-imidazo[5,1-c][1,4]oxazin-3-yl)methyl]morpholine-3-carboxamide 1157077-53-6P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(5-methyl-4,5-dihydro-1H-imidazol-2-yl)methyl]morpholine-3-carboxamide  
 1157077-54-7P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(isopropyl-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-55-8P, (3S)-4-[[1-(2-Amino-2-oxoethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethylmorpholine-3-carboxamide 1157077-56-9P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[[1-(2,2,2-trifluoroethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]morpholine-3-carboxamide 1157077-57-0P,  
 (3S)-4-[[1-(Benzyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethylmorpholine-3-carboxamide 1157077-58-1P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(cyclohexylmethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-59-2P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5,5-difluoro-1,4,5,6-tetrahydropyrimidin-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-60-5P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[4,4-dimethyl-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-61-6P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5,5-dimethyl-1,4,5,6-tetrahydropyrimidin-2-yl)methyl]morpholine-3-carboxamide 1157077-62-7P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1,4,5,6-tetrahydropyrimidin-2-yl)methyl]morpholine-3-carboxamide 1157077-63-8P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[3a,4,5,6,7,7a-hexahydro-1H-benzimidazol-2-yl]methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-64-9P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2S)-2-(1H-imidazol-1-yl)propyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-65-0P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5,5-dimethyl-1,4,5,6-tetrahydropyrimidin-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-66-1P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-67-2P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(7aS)-5,6,7,7a-tetrahydro-1H-pyrrolo[1,2-c]imidazol-3-yl)methyl]morpholine-3-carboxamide 1157077-68-3P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(2-hydroxy-2-methylpropyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-69-4P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1-methyl-4,5-dihydro-1H-imidazol-2-yl)methyl]morpholine-3-carboxamide

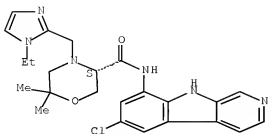


1157077-76-7P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1,3-thiazol-2-yl)methyl]morpholine-3-carboxamide  
1157077-71-8P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[4,4-dimethyl-1-(2,2,2-trifluoroethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-72-9P, Ethyl 2-[[[(5S)-5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethylmorpholin-4-yl]methyl]-4,5-dihydro-1H-imidazole-5-carboxylate 1157077-73-0P, (3S)-4-(2-Amino-2-iminoethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)morpholine-3-carboxamide 1157077-74-1P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(3,5-dichloropyridin-4-yl)methyl]morpholine-3-carboxamide 1157077-75-2P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(1,5,6,7,8,8a-hexahydroimidazo[1,5-a]pyridin-3-yl)ethyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-76-3P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(2,2-difluoroethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-77-4P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[[1-[2-oxo-2-(pyrrolidin-1-yl)ethyl]-4,5-dihydro-1H-imidazol-2-yl]methyl]morpholine-3-carboxamide 1157077-78-5P, (3S)-4-[(1-Butyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethylmorpholine-3-carboxamide 1157077-79-6P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1-methyl-1H-imidazol-5-yl)methyl]morpholine-3-carboxamide 1157077-80-9P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1-methyl-1H-imidazol-2-yl)methyl]morpholine-3-carboxamide 1157077-81-0P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(3a,4,5,6,7,7a-hexahydro-1H-benzimidazol-2-yl)methyl]morpholine-3-carboxamide 1157077-82-1P, Ethyl 2-[2-[[[(5S)-5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethylmorpholin-4-yl]methyl]-4,5-dihydro-1H-imidazol-1-yl]acetate 1157077-83-2P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-isopropyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-84-3P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(1H-imidazol-1-yl)ethyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-85-4P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[imidazo[1,5-a]pyridin-3-yl]methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-86-5P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-cyclopentyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-87-6P, 1157077-88-7P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(2,2-dimethylpropyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-89-8P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(4,5-dihydro-1H-imidazol-2-yl)ethyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-90-1P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(1-ethyl-4,5-dihydro-1H-imidazol-2-yl)ethyl]-6,6-dimethylmorpholine-3-carboxamide

RL: PAC (Pharmacological activity); PRPH (Prophetic); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of beta carbolines as IKK-2 inhibitors for treating cancer and inflammatory disorders, and immune-related diseases)

RN 1157075-93-8 CAPLUS  
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-ethyl-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

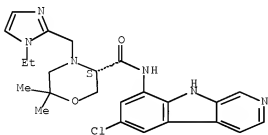


RN 1157075-94-9 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 1157075-93-8  
CMF C24 H27 Cl N6 O2

Absolute stereochemistry.



CM 2

CRN 64-18-6  
CMF C H2 O2

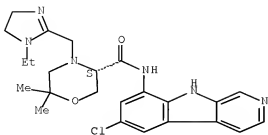
$\text{O}=\text{CH}-\text{OH}$

RN 1157075-97-2 CAPLUS  
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-ethyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 1157075-96-1  
CMF C24 H29 Cl N6 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1

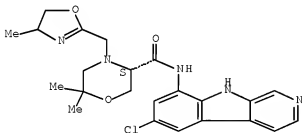
CMF C2 H F3 O2



RN 1157076-03-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5-dihydro-4-methyl-2-oxazolyl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

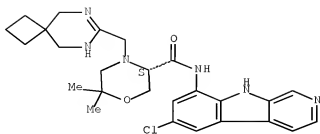
Absolute stereochemistry.



RN 1157076-12-4 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

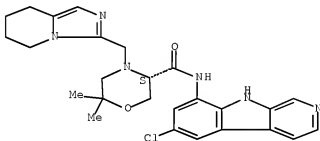
Absolute stereochemistry.



RN 1157076-18-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(5,6,7,8-tetrahydroimidazo[1,5-a]pyridin-3-yl)methyl]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 1157076-19-1 CAPLUS

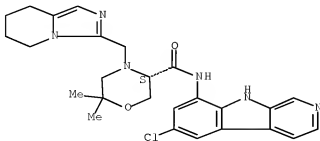
CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 1157076-18-0

CMF C26 H29 Cl N6 O2

Absolute stereochemistry.



CM 2

CRN 64-18-6

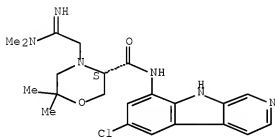
CMF C H2 O2



RN 1157076-34-0 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

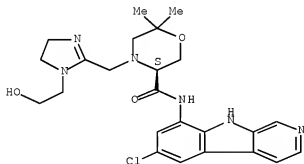
Absolute stereochemistry.



RN 1157076-40-8 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

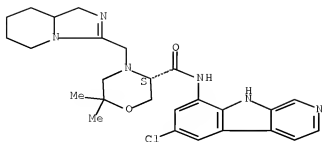
Absolute stereochemistry.



RN 1157076-43-1 CAPLUS

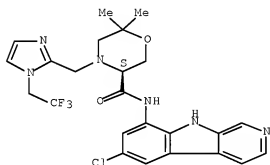
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1,5,6,7,8,8a-hexahydroimidazo[1,5-a]pyridin-3-yl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



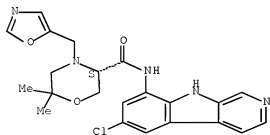
RN 1157076-50-0 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



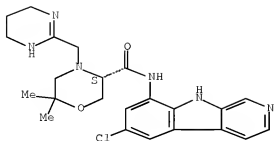
RN 1157076-82-8 CAPLUS  
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-(5-oxazolylmethyl)-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



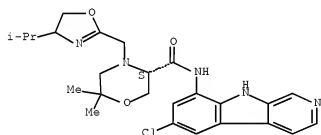
RN 1157076-85-1 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



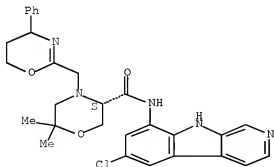
RN 1157077-31-0 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



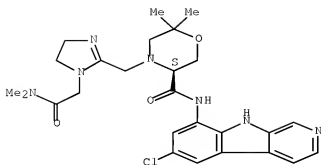
RN 1157077-35-4 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



RN 1157077-49-0 CAPLUS  
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-[2-(dimethylamino)-2-oxoethyl]-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

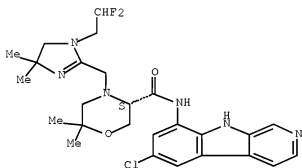
Absolute stereochemistry.



RN 1157077-50-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(2,2-difluoroethyl)-4,5-dihydro-4,4-dimethyl-1H-imidazol-2-yl]methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

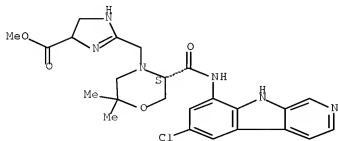
Absolute stereochemistry.



RN 1157077-51-4 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.

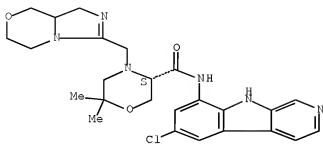


RN 1157077-52-5 CAPLUS

CN INDEX NAME NOT YET ASSIGNED



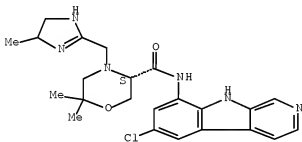
Absolute stereochemistry.



RN 1157077-53-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5-dihydro-5-methyl-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

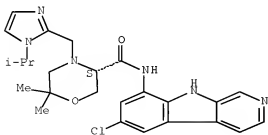
Absolute stereochemistry.



RN 1157077-54-7 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

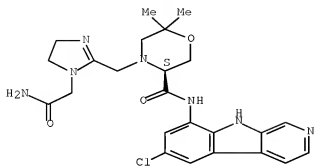
Absolute stereochemistry.



RN 1157077-55-8 CAPLUS

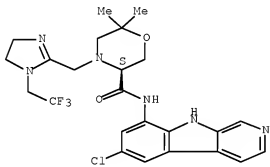
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



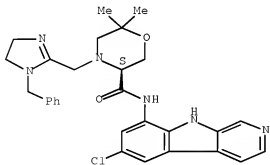
RN 1157077-56-9 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



RN 1157077-57-0 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

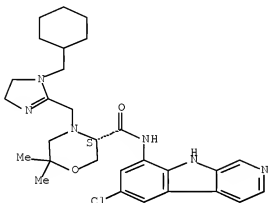
Absolute stereochemistry.



RN 1157077-58-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(cyclohexylmethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

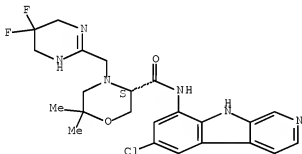
Absolute stereochemistry.



RN 1157077-59-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5,5-difluoro-1,4,5,6-tetrahydro-2-pyrimidinyl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

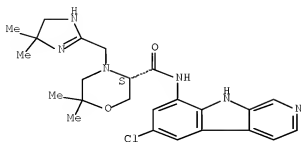
Absolute stereochemistry.



RN 1157077-60-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5-dihydro-5,5-dimethyl-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

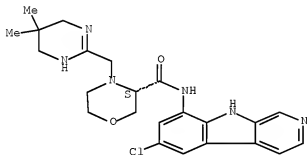
Absolute stereochemistry.



RN 1157077-61-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1,4,5,6-tetrahydro-5,5-dimethyl-2-pyrimidinyl)methyl]-, (3S)- (CA INDEX NAME)

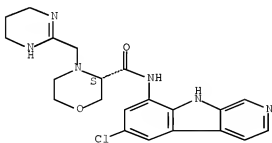
Absolute stereochemistry.



RN 1157077-62-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1,4,5,6-tetrahydro-2-pyrimidinyl)methyl]-, (3S)- (CA INDEX NAME)

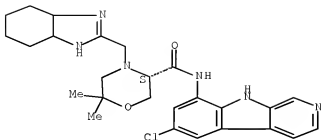
Absolute stereochemistry.



RN 1157077-63-8 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

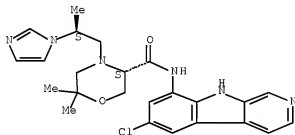
Absolute stereochemistry.



RN 1157077-64-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2S)-2-(1H-imidazol-1-yl)propyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

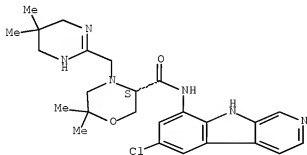
Absolute stereochemistry.



RN 1157077-65-0 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

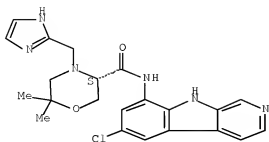
Absolute stereochemistry.



RN 1157077-66-1 CAPLUS

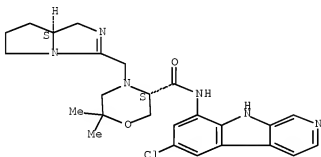
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-(1H-imidazol-2-ylmethyl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



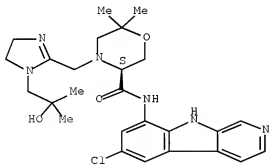
RN 1157077-67-2 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



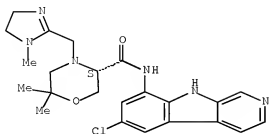
RN 1157077-68-3 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



RN 1157077-69-4 CAPLUS  
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5-dihydro-1-methyl-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

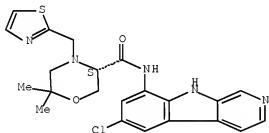
Absolute stereochemistry.



RN 1157077-70-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-(2-thiazolylmethyl)-, (3S)- (CA INDEX NAME)

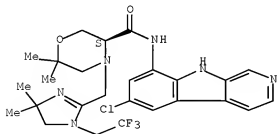
Absolute stereochemistry.



RN 1157077-71-8 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

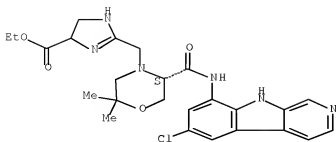
Absolute stereochemistry.



RN 1157077-72-9 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

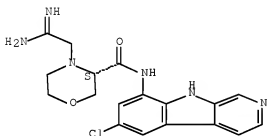
Absolute stereochemistry.



RN 1157077-73-0 CAPLUS

CN 3-Morpholinecarboxamide, 4-(2-amino-2-iminoethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, (3S)- (CA INDEX NAME)

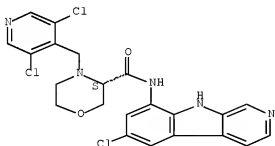
Absolute stereochemistry.



RN 1157077-74-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(3,5-dichloro-4-pyridinyl)methyl]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

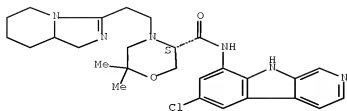


RN 1157077-75-2 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.

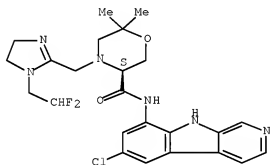




RN 1157077-76-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-([1-(2,2-difluoroethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

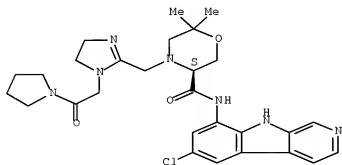
Absolute stereochemistry.



RN 1157077-77-4 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

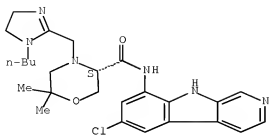
Absolute stereochemistry.



RN 1157077-78-5 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

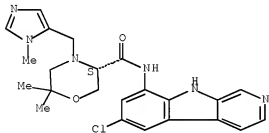
Absolute stereochemistry.



RN 1157077-79-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1-methyl-1H-imidazol-5-yl)methyl]-, (3S)- (CA INDEX NAME)

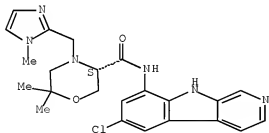
Absolute stereochemistry.



RN 1157077-80-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1-methyl-1H-imidazol-2-yl)methyl]-, (3S)- (CA INDEX NAME)

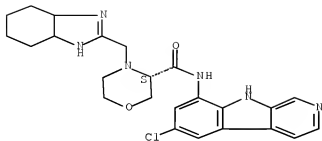
Absolute stereochemistry.



RN 1157077-81-0 CAPLUS

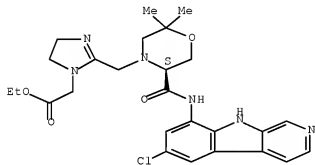
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(3a,4,5,6,7,7a-hexahydro-1H-benzimidazol-2-yl)methyl]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



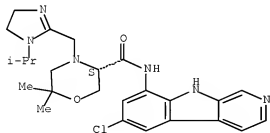
RN 1157077-82-1 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



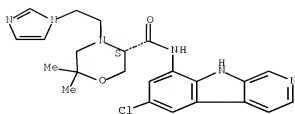
RN 1157077-83-2 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



RN 1157077-84-3 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

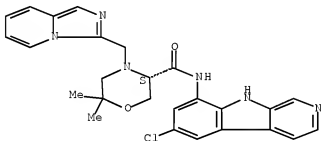
Absolute stereochemistry.



RN 1157077-85-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-((1-cyclopentyl-4,5-dihydro-1H-imidazol-2-yl)methyl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

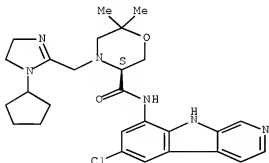
Absolute stereochemistry.



RN 1157077-86-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-((1-cyclopentyl-4,5-dihydro-1H-imidazol-2-yl)methyl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

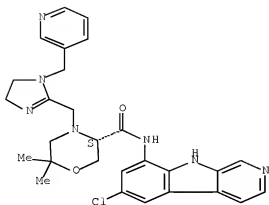
Absolute stereochemistry.



RN 1157077-87-6 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

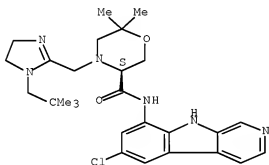
Absolute stereochemistry.



RN 1157077-88-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-(2,2-dimethylpropyl)-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

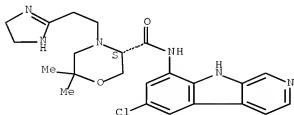
Absolute stereochemistry.



RN 1157077-89-8 CAPLUS

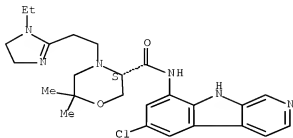
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



RN 1157077-90-1 CAPLUS

Absolute stereochemistry.



IT 1157075-91-6P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-  
 [(1-ethyl-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide  
 trihydrochloride 1157075-95-0P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-ethyl-4,5-dihydro-1H-  
 imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide  
 trihydrochloride 1157076-00-0P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[[ (4R)-4-  
 methyl-4,5-dihydro-1,3-oxazol-2-yl)methyl]morpholine-3-carboxamide  
 1157076-01-1P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-  
 dimethyl-4-[[ (4S)-4-methyl-4,5-dihydro-1,3-oxazol-2-yl)methyl]morpholine-3-  
 carboxamide 1157076-07-7P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1H-pyrazol-3-  
 yl)methyl]morpholine-3-carboxamide 1157076-10-2P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[[ (4S)-4-  
 phenyl-4,5-dihydro-1,3-oxazol-2-yl)methyl]morpholine-3-carboxamide  
 1157076-11-3P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-  
 [2-(dimethylamino)-2-oxoethyl]-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-  
 dimethylmorpholine-3-carboxamide trihydrochloride 1157076-13-5P  
 , (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(6,8-diazaspiro[3.5]non-  
 6-en-7-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide  
 tris(trifluoroacetate) 1157076-15-7P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5,5-dimethyl-5,6-dihydro-  
 4H-1,3-oxazin-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide  
 1157076-17-9P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-  
 dimethyl-4-[(5,6,7,8-tetrahydroimidazo[1,5-a]pyridin-3-  
 yl)methyl]morpholine-3-carboxamide trihydrochloride  
 1157076-20-4P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-  
 [(1,3-thiazol-2-yl)methyl]morpholine-3-carboxamide 1157076-21-5P  
 , (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(2,2-difluoroethyl)-  
 4,4-dimethyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-  
 carboxamide trihydrochloride 1157076-23-7P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(3-fluoropyridin-4-  
 yl)methyl]morpholine-3-carboxamide 1157076-24-8P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5-dihydro-1,3-oxazol-2-  
 yl)methyl]-6,6-dimethylmorpholine-3-carboxamide 1157076-25-9P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,4-dimethyl-4,5-dihydro-  
 1,3-oxazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide  
 1157076-26-0P, (3S)-2-[[[5-[[[6-Chloro-9H-pyrido[3,4-b]indol-8-  
 yl)amino]carbonyl]-2,2-dimethylmorpholin-4-yl]methyl]-4,5-dihydro-1H-  
 imidazole-5-carboxylic acid methyl ester trihydrochloride  
 1157076-28-2P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4-  
 methyl-1H-imidazol-5-yl)methyl]morpholine-3-carboxamide

1157076-39-3P, (3S)-4-[(Benzo[b]thien-2-yl)methyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethylmorpholine-3-carboxamide dihydrochloride 1157076-30-6P,  
 (3S)-4-[(Benzo[b]thien-2-yl)methyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethylmorpholine-3-carboxamide 1157076-31-7P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(5,6,8,8a-tetrahydro-1H-imidazo[5,1-c][1,4]oxazin-3-yl)methyl]morpholine-3-carboxamide trihydrochloride 1157076-35-1P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(dimethylamino)-2-iminoethyl]-6,6-dimethylmorpholine-3-carboxamide tris(trifluoroacetate) 1157076-37-3P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(4-methyl-4,5-dihydro-1H-imidazol-2-yl)methyl]morpholine-3-carboxamide tris(trifluoroacetate) 1157076-38-4P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(pyridin-4-yl)methyl]morpholine-3-carboxamide 1157076-39-5P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-isopropyl-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157076-41-9P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(2-hydroxyethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethylmorpholine-3-carboxamide tris(trifluoroacetate) 1157076-44-2P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1,5,6,7,8,8a-hexahydroimidazo[1,5-a]pyridin-3-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide tris(trifluoroacetate) 1157076-46-4P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(6-methylpyridin-2-yl)methyl]morpholine-3-carboxamide 1157076-47-5P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(3-oxa-1-azaspiro[4.4]non-1-en-2-yl)methyl]morpholine-3-carboxamide 1157076-49-7P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[[1-(2,2,2-trifluoroethyl)-1H-imidazol-2-yl]methyl]morpholine-3-carboxamide trihydrochloride 1157076-51-1P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(pyrimidin-2-yl)methyl]morpholine-3-carboxamide 1157076-52-2P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[((4)-4-isobutyl-4,5-dihydro-1,3-oxazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide 1157076-54-4P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[pyridin-3-yl)methyl]morpholine-3-carboxamide 1157076-55-5P,  
 (3S)-4-[[1-(2-Amino-2-oxoethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157076-57-7P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[[1-(2,2,2-trifluoroethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]morpholine-3-carboxamide trihydrochloride 1157076-58-8P,  
 (3S)-4-[(1-Benzyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157076-59-9P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(cyclohexylmethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157076-61-3P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5,5-difluoro-1,4,5,6-tetrahydropyrimidin-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157076-64-6P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,4-dimethyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide tris(trifluoroacetate) 1157076-66-8P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5,5-dimethyl-1,4,5,6-tetrahydropyrimidin-2-yl)methyl]morpholine-3-carboxamide trihydrochloride 1157076-68-0P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1,4,5,6-tetrahydropyrimidin-2-yl)methyl]morpholine-3-carboxamide trihydrochloride 1157076-69-1P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(3a,4,5,6,7,7a-hexahydro-

1H-benzimidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157076-71-5P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2S)-2-(1H-imidazol-1-yl)propyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157076-73-7P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5,5-dimethyl-1,4,5,6-tetrahydropyrimidin-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157076-75-9P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5,7-diazaspiro[2.5]oct-5-en-6-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide tris(trifluoroacetate) 1157076-77-1P,  
 (3S)-4-[(1H-Indol-3-yl)methyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)morpholine-3-carboxamide 1157076-78-2P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157076-80-6P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(4,5,6,7,7a-tetrahydro-1H-pyrrolo[1,2-c]imidazol-3-yl)methyl]morpholine-3-carboxamide tris(trifluoroacetate) 1157076-83-9P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1,3-oxazol-5-yl)methyl]morpholine-3-carboxamide tris(trifluoroacetate) 1157076-84-0P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide 1157076-86-2P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1,4,5,6-tetrahydropyrimidin-2-yl)methyl]morpholine-3-carboxamide tris(trifluoroacetate) 1157076-87-3P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(pyrazin-2-yl)methyl]morpholine-3-carboxamide 1157076-88-4P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-(2-hydroxy-2-methylpropyl)-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157076-90-8P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1-methyl-4,5-dihydro-1H-imidazol-2-yl)methyl]morpholine-3-carboxamide trihydrochloride 1157076-91-9P, (3S)-4-[(1,3-Benzothiazol-2-yl)methyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethylmorpholine-3-carboxamide 1157076-92-0P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1,3-thiazol-2-yl)methyl]morpholine-3-carboxamide dihydrochloride 1157076-93-1P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5-oxo-4,5-dihydro-1H-1,2,4-triazol-3-yl)methyl]morpholine-3-carboxamide 1157076-94-2P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,4-dimethyl-1-(2,2,2-trifluoroethyl)-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157076-96-4P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1,3-oxazol-2-yl)methyl]morpholine-3-carboxamide 1157076-97-5P,  
 (3S)-2-[[5-[(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethylmorpholin-4-yl)methyl]-4,5-dihydro-1H-imidazole-5-carboxylic acid ethyl ester trihydrochloride 1157076-99-7P,  
 (3S)-4-(2-Amino-2-iminoethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)morpholine-3-carboxamide trihydrochloride 1157077-00-3P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2,5-dichloropyridin-4-yl)methyl]morpholine-3-carboxamide 1157077-01-4P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-methyl-1H-indol-3-yl)methyl]morpholine-3-carboxamide 1157077-02-5P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(1,5,6,7,8a-hexahydroimidazo[1,5-a]pyridin-3-yl)ethyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157077-04-7P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-(2-difluoroethyl)-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157077-06-9P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2-phenyl-1H-imidazol-5-



yl)methyl]morpholine-3-carboxamide 1157077-07-0P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1H-pyrazol-3-yl)methyl]morpholine-3-carboxamide 1157077-08-1P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[[1-[2-oxo-2-(pyrrolidin-1-yl)ethyl]-4,5-dihydro-1H-imidazol-2-yl)methyl]morpholine-3-carboxamide trihydrochloride 1157077-10-5P,  
 (3S)-4-[(1-Butyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157077-11-6P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1-methyl-1H-imidazol-5-yl)methyl]morpholine-3-carboxamide trihydrochloride 1157077-12-7P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-methyl-1H-imidazol-2-yl)methyl]morpholine-3-carboxamide trihydrochloride 1157077-13-8P, 1157077-14-9P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(pyrimidin-5-yl)methyl]morpholine-3-carboxamide 1157077-15-0P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1H-imidazol-5-yl)methyl]morpholine-3-carboxamide 1157077-17-2P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(4,4,6-trimethyl-5,6-dihydro-4H-1,3-oxazin-2-yl)methyl]morpholine-3-carboxamide 1157077-18-3P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5-methoxy-1H-indol-3-yl)methyl]morpholine-3-carboxamide 1157077-19-4P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1H-imidazol-2-yl)methyl]morpholine-3-carboxamide 1157077-20-7P, 2-[2-[[[(5S)-5-[[[(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethylmorpholin-4-yl)methyl]-4,5-dihydro-1H-imidazol-1-yl]acetic acid ethyl ester trihydrochloride 1157077-24-1P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(1H-imidazol-1-yl)ethyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157077-28-5P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[[(4S)-4-isopropyl-4,5-dihydro-1,3-oxazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-29-6P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[[(4R)-4-isopropyl-4,5-dihydro-1,3-oxazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide 1157077-32-1P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[[[(4S)-4-phenyl-5,6-dihydro-4H-1,3-oxazin-2-yl)methyl]morpholine-3-carboxamide 1157077-33-2P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[[[(4R)-4-phenyl-5,6-dihydro-4H-1,3-oxazin-2-yl)methyl]morpholine-3-carboxamide 1157077-36-5P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[[imidazo[1,5-a]pyridin-3-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157077-37-6P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(1H-imidazol-1-yl)ethyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157077-38-7P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-cyclopentyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157077-40-1P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[[1-[(pyridin-3-yl)methyl]-4,5-dihydro-1H-imidazol-2-yl)methyl]morpholine-3-carboxamide dihydrochloride 1157077-42-3P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(2,2-dimethylpropyl)-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethylmorpholine-3-carboxamide dihydrochloride 1157077-45-6P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(pyrimidin-5-yl)methyl]morpholine-3-carboxamide 1157077-46-7P,  
 (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(4,5-dihydro-1H-imidazol-2-yl)ethyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride 1157077-47-8P, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(1-ethyl-4,5-dihydro-1H-imidazol-2-yl)ethyl]-6,6-dimethylmorpholine-3-carboxamide trihydrochloride

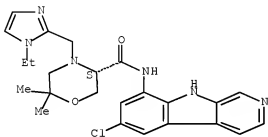
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of beta carbolines as IKK-2 inhibitors for treating cancer and inflammatory disorders, and immune-related diseases)

RN 1157075-91-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-ethyl-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

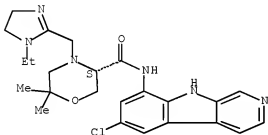


●3 HCl

RN 1157075-95-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-ethyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

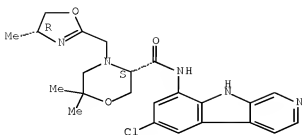


●3 HCl

RN 1157076-00-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[4R)-4,5-dihydro-4-methyl-2-oxazolyl]methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

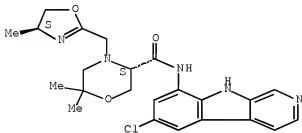
Absolute stereochemistry.



RN 1157076-01-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4S)-4,5-dihydro-4-methyl-2-oxazolylmethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

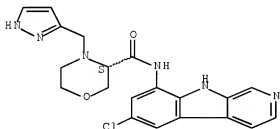
Absolute stereochemistry.



RN 1157076-07-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-(1H-pyrazol-3-ylmethyl)-, (3S)- (CA INDEX NAME)

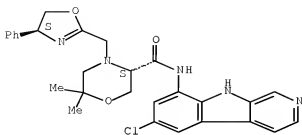
Absolute stereochemistry.



RN 1157076-10-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4S)-4,5-dihydro-4-phenyl-2-oxazolylmethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

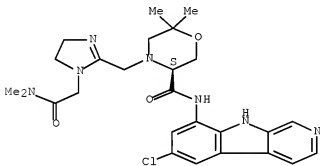
Absolute stereochemistry.



RN 1157076-11-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-([1-[2-(dimethylamino)-2-oxoethyl]-4,5-dihydro-1H-imidazol-2-yl]methyl)-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



●3 HCl

RN 1157076-13-5 CAPLUS

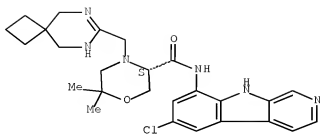
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-(6,8-diazaspiro[3.5]non-6-en-7-ylmethyl)-6,6-dimethyl-, (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 1157076-12-4

CMF C26 H31 Cl N6 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1

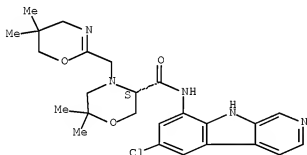
CMF C2 H F3 O2



RN 1157076-15-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5,6-dihydro-5,5-dimethyl-4H-1,3-oxazin-2-yl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

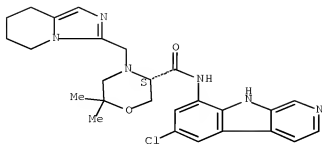
Absolute stereochemistry.



RN 1157076-17-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(5,6,7,8-tetrahydroimidazo[1,5-a]pyridin-3-yl)methyl]-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

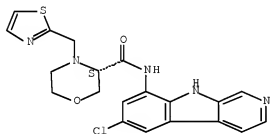


● 3 HCl

RN 1157076-20-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-(2-thiazolylmethyl)-, (3S)- (CA INDEX NAME)

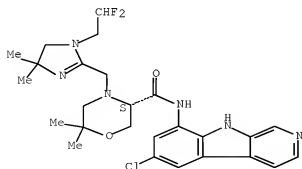
Absolute stereochemistry.



RN 1157076-21-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(2,2-difluoroethyl)-4,5-dihydro-4,4-dimethyl-1H-imidazol-2-yl]methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

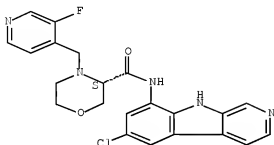


● 3 HCl

RN 1157076-23-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(3-fluoro-4-pyridinyl)methyl]-, (3S)- (CA INDEX NAME)

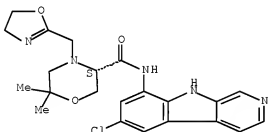
Absolute stereochemistry.



RN 1157076-24-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5-dihydro-2-oxazolyl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

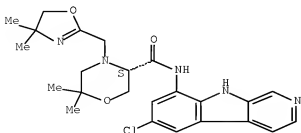
Absolute stereochemistry.



RN 1157076-25-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5-dihydro-4,4-dimethyl-2-oxazolyl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

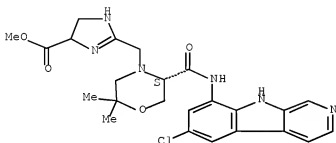
Absolute stereochemistry.



RN 1157076-26-0 CAPLUS

CN 1H-imidazole-5-carboxylic acid, 2-[[[(5S)-5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl)methyl]-4,5-dihydro-, methyl ester, hydrochloride (1:3) (CA INDEX NAME)

Absolute stereochemistry.

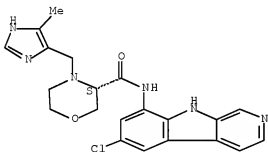


●3 HCl

RN 1157076-28-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4-methyl-1H-imidazol-5-yl)methyl]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

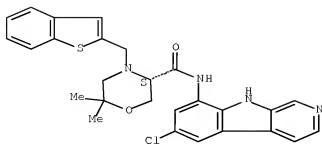


RN 1157076-29-3 CAPLUS

CN 3-Morpholinecarboxamide, 4-(benzo[b]thien-2-ylmethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, hydrochloride (1:2), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



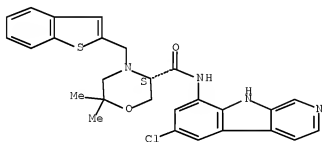


●2 HCl

RN 1157076-30-6 CAPLUS

CN 3-Morpholinecarboxamide, 4-(benzo[b]thien-2-ylmethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

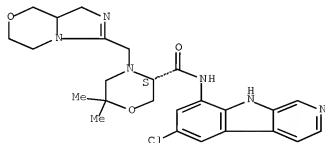
Absolute stereochemistry.



RN 1157076-31-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(5,6,8,8a-tetrahydro-1H-imidazo[5,1-c][1,4]oxazin-3-yl)methyl]-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



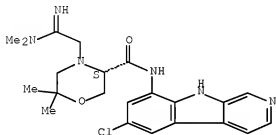
●3 HCl

RN 1157076-35-1 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(dimethylamino)-2-iminoethyl]-6,6-dimethyl-, (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 1157076-34-0  
 CMF C22 H27 Cl N6 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1  
 CMF C2 H F3 O2

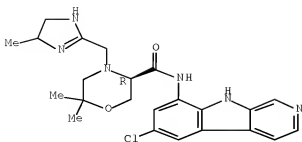


RN 1157076-37-3 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5-dihydro-5-methyl-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, (3R)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 1157076-36-2  
 CMF C23 H27 Cl N6 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1

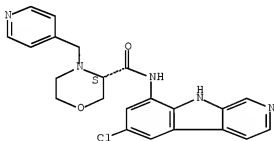
CMF C2 H F3 O2



RN 1157076-38-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-(4-pyridinylmethyl)-, (3S)- (CA INDEX NAME)

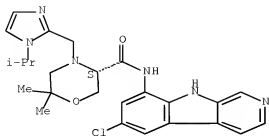
Absolute stereochemistry.



RN 1157076-39-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[[1-(1-methylethyl)-1H-imidazol-2-yl]methyl]-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



●3 HCl

RN 1157076-41-9 CAPLUS

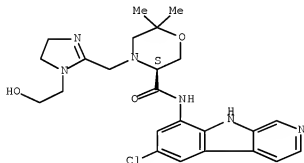
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[4,5-dihydro-1-(2-hydroxyethyl)-1H-imidazol-2-yl]methyl]-6,6-dimethyl-, (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 1157076-40-8

CMF C24 H29 Cl N6 O3

Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2

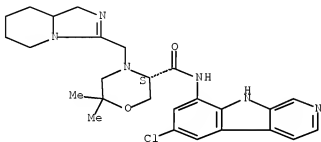


RN 1157076-44-2 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-  
 [(1,5,6,7,8,8a-hexahydroimidazo[1,5-a]pyridin-3-yl)methyl]-6,6-dimethyl-,  
 (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 1157076-43-1  
 CMF C26 H31 Cl N6 O2

Absolute stereochemistry.



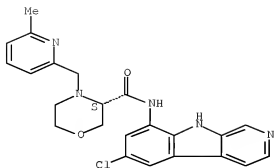
CM 2

CRN 76-05-1  
 CMF C2 H F3 O2



RN 1157076-46-4 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(6-  
 methyl-2-pyridinyl)methyl]-, (3S)- (CA INDEX NAME)

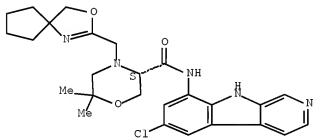
Absolute stereochemistry.



RN 1157076-47-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-(3-oxa-1-azaspiro[4.4]non-1-en-2-ylmethyl)-, (3S)- (CA INDEX NAME)

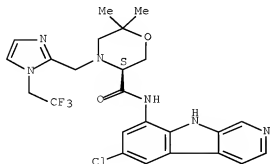
Absolute stereochemistry.



RN 1157076-49-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[[1-(2,2,2-trifluoroethyl)-1H-imidazol-2-yl]methyl]-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

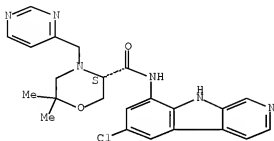


●3 HCl

RN 1157076-51-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-(4-pyrimidinylmethyl)-, (3S)- (CA INDEX NAME)

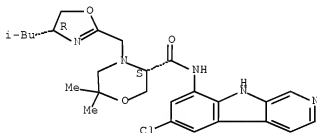
Absolute stereochemistry.



RN 1157076-52-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[[(4R)-4,5-dihydro-4-(2-methylpropyl)-2-oxazolyl]methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

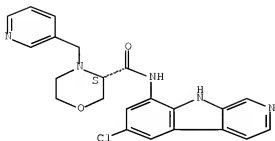
Absolute stereochemistry.



RN 1157076-54-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-(3-pyridinylmethyl)-, (3S)- (CA INDEX NAME)

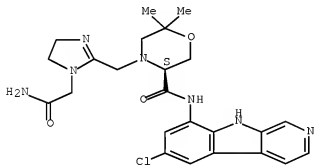
Absolute stereochemistry.



RN 1157076-55-5 CAPLUS

CN 3-Morpholinecarboxamide, 4-[[1-(2-amino-2-oxoethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



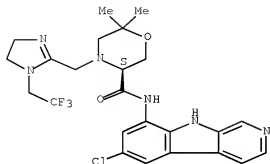
●3 HCl

RN 1157076-57-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[4,5-dihydro-1-(2,2,2-trifluoroethyl)-1H-imidazol-2-yl]methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



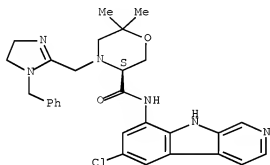


●3 HCl

RN 1157076-58-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[4,5-dihydro-1-(phenylmethyl)-1H-imidazol-2-yl]methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

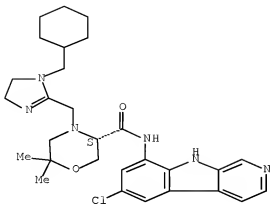


●3 HCl

RN 1157076-59-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(cyclohexylmethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

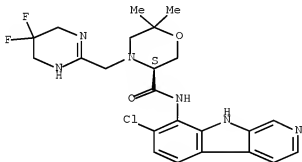


●3 HCl

RN 1157076-61-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(7-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5,5-difluoro-1,4,5,6-tetrahydro-2-pyrimidinyl)methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



●3 HCl

RN 1157076-64-6 CAPLUS

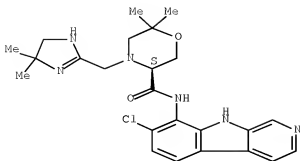
CN 3-Morpholinecarboxamide, N-(7-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5-dihydro-5,5-dimethyl-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 1157076-63-5

CMF C24 H29 Cl N6 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1

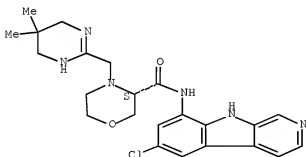
CMF C2 H F3 O2



RN 1157076-66-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1,4,5,6-tetrahydro-5,5-dimethyl-2-pyrimidinyl)methyl]-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

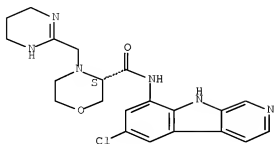


●3 HCl

RN 1157076-68-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1,4,5,6-tetrahydro-5,5-dimethyl-2-pyrimidinyl)methyl]-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

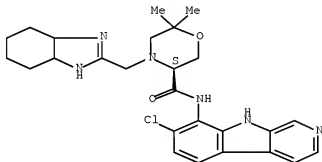


●3 HCl

RN 1157076-69-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(7-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(3a,4,5,6,7,7a-hexahydro-1H-benzimidazol-2-yl)methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

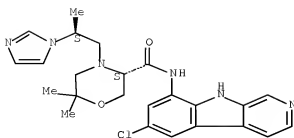


●3 HCl

RN 1157076-71-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2S)-2-(1H-imidazol-1-yl)propyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

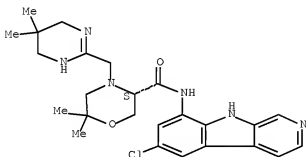


●3 HCl

RN 1157076-73-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1,4,5,6-tetrahydro-5,5-dimethyl-2-pyrimidinyl)methyl]-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



●3 HCl

RN 1157076-75-9 CAPLUS

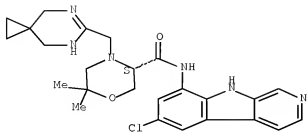
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-(5,7-diazaspiro[2.5]oct-5-en-6-ylmethyl)-6,6-dimethyl-, (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 1157076-74-8

CMF C25 H29 Cl N6 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1

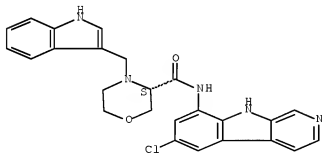
CMF C2 H F3 O2



RN 1157076-77-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-(1H-indol-3-ylmethyl)-, (3S)- (CA INDEX NAME)

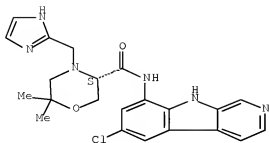
Absolute stereochemistry.



RN 1157076-78-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-(1H-imidazol-2-ylmethyl)-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



●3 HCl

RN 1157076-80-6 CAPLUS

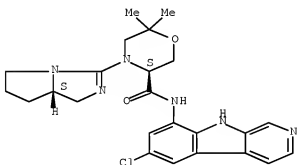
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(7aS)-5,6,7,7a-tetrahydro-1H-pyrrolo[1,2-c]imidazol-3-yl]-, (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 1157076-79-3

CMF C24 H27 Cl N6 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2

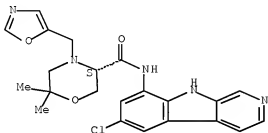


RN 1157076-83-9 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-(5-oxazolymethyl)-, (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 1157076-82-8  
 CMF C22 H22 Cl N5 O3

Absolute stereochemistry.



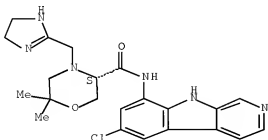
CM 2

CRN 76-05-1  
 CMF C2 H F3 O2



RN 1157076-84-0 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



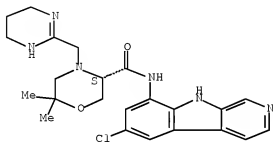


RN 1157076-86-2 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1,4,5,6-tetrahydro-2-pyrimidinyl)methyl]-, (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 1157076-85-1  
 CMF C23 H27 Cl N6 O2

Absolute stereochemistry.



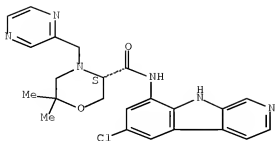
CM 2

CRN 76-05-1  
 CMF C2 H F3 O2



RN 1157076-87-3 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-(2-pyrazinylmethyl)-, (3S)- (CA INDEX NAME)

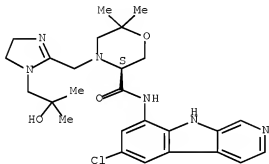
Absolute stereochemistry.



RN 1157076-88-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5-dihydro-1-(2-hydroxy-2-methylpropyl)-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

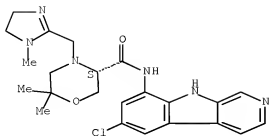


●3 HCl

RN 1157076-90-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(4,5-dihydro-1-methyl-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

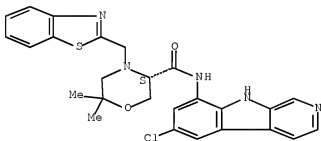


●3 HCl

RN 1157076-91-9 CAPLUS

CN 3-Morpholinecarboxamide, 4-(2-benzothiazolylmethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

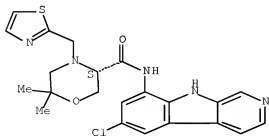
Absolute stereochemistry.



RN 1157076-92-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-(2-thiazolylmethyl)-, hydrochloride (1:2), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

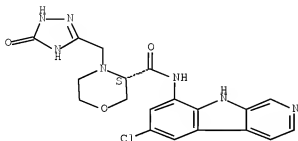


●2 HCl

RN 1157076-93-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl)methyl]-, (3S)- (CA INDEX NAME)

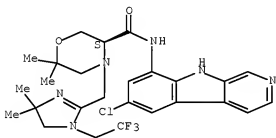
Absolute stereochemistry.



RN 1157076-94-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[4,5-dihydro-4,4-dimethyl-1-(2,2,2-trifluoroethyl)-1H-imidazol-2-yl]methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

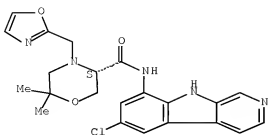


● 3 HCl

RN 1157076-96-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-(2-oxazolylmethyl)-, (3S)- (CA INDEX NAME)

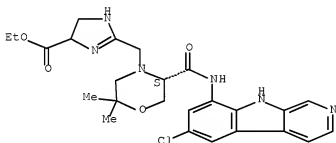
Absolute stereochemistry.



RN 1157076-97-5 CAPLUS

CN 1H-Imidazole-5-carboxylic acid, 2-[[[(5S)-5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl)methyl]-4,5-dihydro-, ethyl ester, hydrochloride (1:3) (CA INDEX NAME)

Absolute stereochemistry.

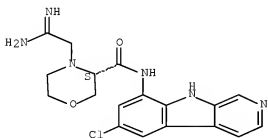


●3 HCl

RN 1157076-99-7 CAPLUS

CN 3-Morpholinecarboxamide, 4-(2-amino-2-iminoethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

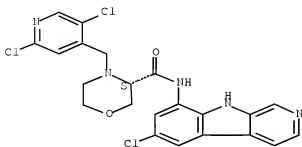


●3 HCl

RN 1157077-00-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2,5-dichloro-4-pyridinyl)methyl]-, (3S)- (CA INDEX NAME)

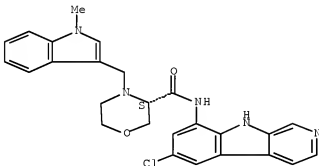
Absolute stereochemistry.



RN 1157077-01-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-methyl-1H-indol-3-yl)methyl]-, (3S)- (CA INDEX NAME)

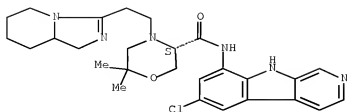
Absolute stereochemistry.



RN 1157077-02-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(1,5,6,7,8,8a-hexahydroimidazo[1,5-a]pyridin-3-yl)ethyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

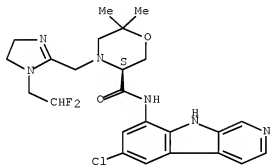


● 3 HCl

RN 1157077-04-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(2,2-difluoroethyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

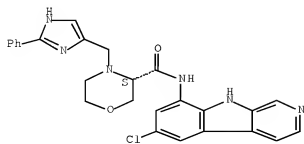


● 3 HCl

RN 1157077-06-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2-phenyl-1H-imidazol-5-yl)methyl]-, (3S)- (CA INDEX NAME)

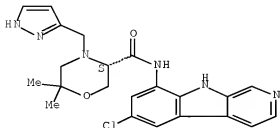
Absolute stereochemistry.



RN 1157077-07-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-(1H-pyrazol-3-ylmethyl)-, (3S)- (CA INDEX NAME)

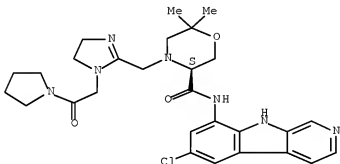
Absolute stereochemistry.



RN 1157077-08-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[4,5-dihydro-1-[2-oxo-2-(1-pyrrolidinyl)ethyl]-1H-imidazol-2-yl]methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



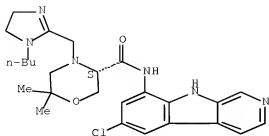
● 3 HCl

RN 1157077-10-5 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(1-butyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



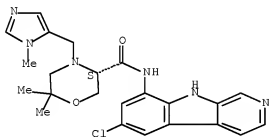


●3 HCl

RN 1157077-11-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1-methyl-1H-imidazol-5-yl)methyl]-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

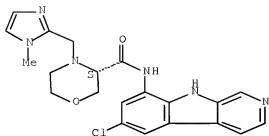


●3 HCl

RN 1157077-12-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-methyl-1H-imidazol-2-yl)methyl]-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

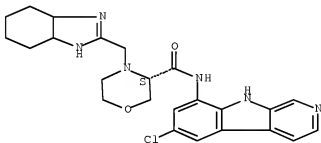


●3 HCl

RN 1157077-13-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(3a,4,5,6,7,7a-hexahydro-1H-benzimidazol-2-yl)methyl]-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

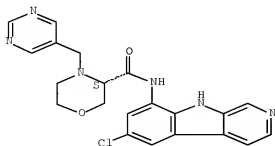


●3 HCl

RN 1157077-14-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-(5-pyrimidinylmethyl)-, (3S)- (CA INDEX NAME)

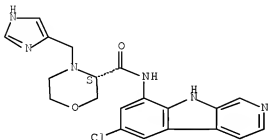
Absolute stereochemistry.



RN 1157077-15-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-(1H-imidazol-5-ylmethyl)-, (3S)- (CA INDEX NAME)

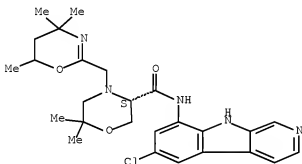
Absolute stereochemistry.



RN 1157077-17-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5,6-dihydro-4,4,6-trimethyl-4H-1,3-oxazin-2-yl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

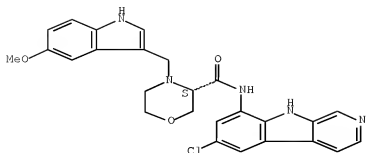
Absolute stereochemistry.



RN 1157077-18-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(5-methoxy-1H-indol-3-yl)methyl]-, (3S)- (CA INDEX NAME)

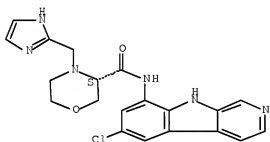
Absolute stereochemistry.



RN 1157077-19-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-(1H-imidazol-2-ylmethyl)-, (3S)- (CA INDEX NAME)

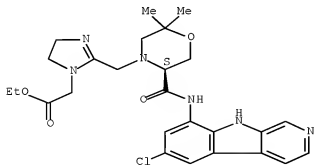
Absolute stereochemistry.



RN 1157077-20-7 CAPLUS

CN 1H-Imidazole-1-acetic acid, 2-[[[(5S)-5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl)methyl]-4,5-dihydro-, ethyl ester, hydrochloride (1:3) (CA INDEX NAME)

Absolute stereochemistry.

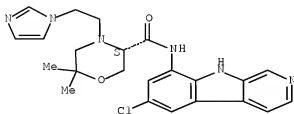


● 3 HCl

RN 1157077-24-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(1H-imidazol-1-yl)ethyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

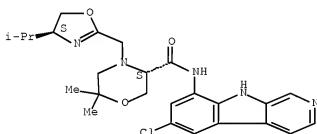


● 3 HCl

RN 1157077-28-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[4S)-4,5-dihydro-4-(1-methylethyl)-2-oxazolyl]methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

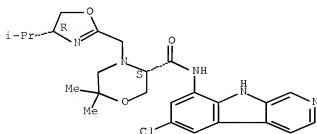
Absolute stereochemistry.



RN 1157077-29-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[4R)-4,5-dihydro-4-(1-methylethyl)-2-oxazolyl]methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

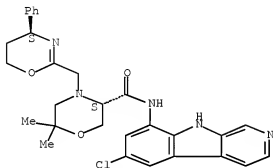
Absolute stereochemistry.



RN 1157077-32-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[ (4S)-5,6-dihydro-4-phenyl-4H-1,3-oxazin-2-yl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

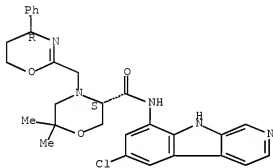
Absolute stereochemistry.



RN 1157077-33-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[ (4R)-5,6-dihydro-4-phenyl-4H-1,3-oxazin-2-yl)methyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

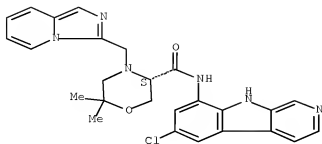
Absolute stereochemistry.



RN 1157077-36-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-(imidazo[1,5-a]pyridin-3-ylmethyl)-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

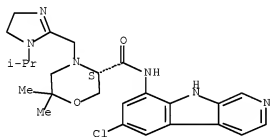


● 3 HCl

RN 1157077-37-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[4,5-dihydro-1-(1-methylethyl)-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

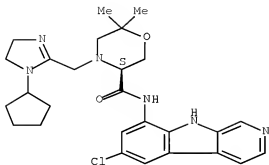


● 3 HCl

RN 1157077-38-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1-cyclopentyl-4,5-dihydro-1H-imidazol-2-yl)methyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

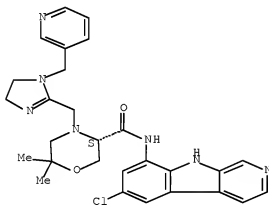


●3 HCl

RN 1157077-40-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[4,5-dihydro-1-(3-pyridinylmethyl)-1H-imidazol-2-yl]methyl]-6,6-dimethyl-, hydrochloride (1:2), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



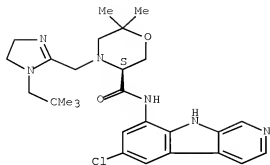
●2 HCl

RN 1157077-42-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[[1-(2,2-dimethylpropyl)-4,5-dihydro-1H-imidazol-2-yl]methyl]-6,6-dimethyl-, hydrochloride (1:2), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



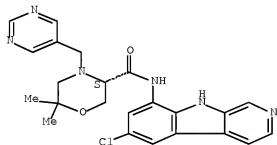


●2 HCl

RN 1157077-45-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-(5-pyrimidinylmethyl)-, (3S)- (CA INDEX NAME)

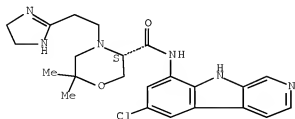
Absolute stereochemistry.



RN 1157077-46-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(4,5-dihydro-1H-imidazol-2-yl)ethyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

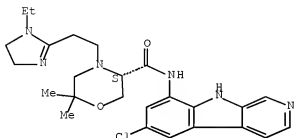


●3 HCl

RN 1157077-47-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(1-ethyl-4,5-dihydro-1H-imidazol-2-yl)ethyl]-6,6-dimethyl-, hydrochloride (1:3), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



● 3 HCl

IT 1157077-16-1P, (3S)-4-[(1H-Benzimidazol-2-yl)methyl]-N-(6-chloro-

9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethylmorpholine-3-carboxamide

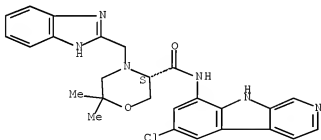
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(reactant; preparation of beta carbolines as IKK-2 inhibitors for treating cancer and inflammatory disorders, and immune-related diseases)

RN 1157077-16-1 CAPLUS

CN 3-Morpholinecarboxamide, 4-(1H-benzimidazol-2-ylmethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



IT 783349-59-7, (3S)-3-[[6-Chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonylmorpholine-4-carboxylic acid tert-butyl ester

783349-79-1, (S)-5-[(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)carbamoyl]-2,2-dimethylmorpholine-4-carboxylic acid tert-butyl ester  
1157076-08-8, (3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)morpholine-3-carboxamide 1157077-27-4,

(3S)-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethylmorpholine-3-carboxamide bis(trifluoroacetate)

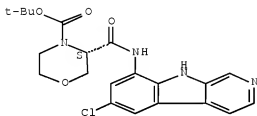
RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant; preparation of beta carbolines as IKK-2 inhibitors for treating cancer and inflammatory disorders, and immune-related diseases)

RN 783349-59-7 CAPLUS

CN 4-Morpholinecarboxylic acid, 3-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-, 1,1-dimethylethyl ester, (3S)- (CA INDEX NAME)

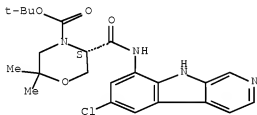
Absolute stereochemistry.



RN 783349-79-1 CAPLUS

CN 4-Morpholinecarboxylic acid, 5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-, 1,1-dimethylethyl ester, (5S)- (CA INDEX NAME)

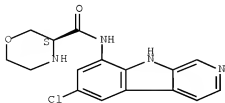
Absolute stereochemistry.



RN 1157076-08-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



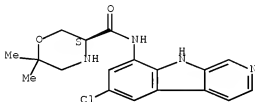
RN 1157077-27-4 CAPLUS  
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)-, 2,2,2-trifluoroacetate (1:2) (CA INDEX NAME)

CM 1

CRN 783349-90-6

CMF C18 H19 Cl N4 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2009:523496 CAPLUS [Full-text](#)  
DOCUMENT NUMBER: 150:501210  
TITLE: Mesylate salt of an IKK inhibitor  
INVENTOR(S): Hicks, Frederick A.; Cooper, Martin Ian; Langston, Marianne; St. Clair Brown, Adrian  
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA  
SOURCE: PCT Int. Appl., 47pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009054970	A1	20090430	WO 2008-US12015	20081022
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,				

CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,  
 FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,  
 KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,  
 ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,  
 PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ,  
 TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,  
 IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,  
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,  
 TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,  
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US 20090137579

A1

20090528

US 2008-288596

20081022

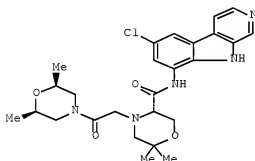
PRIORITY APPLN. INFO.:

US 2007-12P

P 20071023

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

GI



I

AB The present invention is directed to the compound of formula (I), or a solvate thereof, or crystalline forms thereof; to a pharmaceutical composition comprising a pharmaceutically effective amount of the compound I, including crystalline forms thereof, and a pharmaceutically acceptable carrier; and to the use of a compound I, or crystalline forms thereof, for treating a patient suffering from, or subject to, a pathol. condition capable of being ameliorated by inhibiting IKK-2, and methods related thereto.

IT 1147862-79-0P 1147862-80-3P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (mesylate salt of an IKK inhibitor)

RN 1147862-79-0 CAPLUS

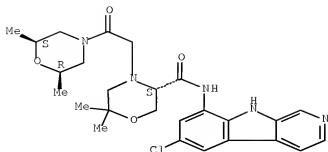
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(2R,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)-, methanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 1147862-78-9

CMF C26 H32 Cl N5 O4

Absolute stereochemistry.



CM 2

CRN 75-75-2

CMF C H4 O3 S



RN 1147862-80-3 CAPLUS

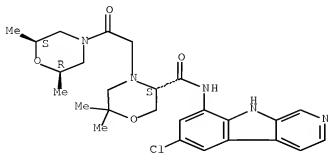
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(2R,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)-, methanesulfonate, compd. with 1-methyl-2-pyrrolidinone (1:1:1) (CA INDEX NAME)

CM 1

CRN 1147862-78-9

CMF C26 H32 Cl N5 O4

Absolute stereochemistry.



CM 2

CRN 872-50-4  
CMF C5 H9 N O



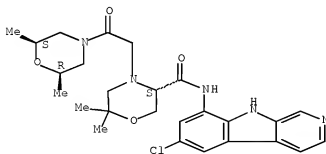
CM 3

CRN 75-75-2  
CMF C H4 O3 S



IT 1147862-78-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(mesylate salt of an IKK inhibitor)  
RN 1147862-78-9 CAPLUS  
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-  
[(2R,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA  
INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2009:519845 CAPLUS [Full-text](#)  
DOCUMENT NUMBER: 150:501200  
TITLE: Salts of N-(6-chloro-9H-pyrido[3,4-b]

indol-8-yl)-4-[2-(2,6-dimethyl-4-morpholinyl)-2-oxoethyl]-6,6-dimethyl-morpholinecarboxamide  
 INVENTOR(S): Hicks, Frederick A.; Cooper, Martin Ian; St. Clair Brown, Adrian  
 PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA  
 SOURCE: PCT Int. Appl., 56pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009054965	A1	20090430	WO 2008-US12006	20081022
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM US 20090131422 A1 20090521 US 2008-288595 20081022 PRIORITY APPLN. INFO.: US 2007-51P P 20071023				

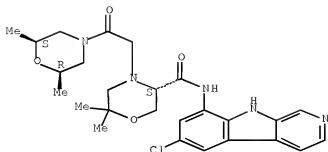
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The present invention is directed to the tartrate, monohydrochloride, malonate and p-toluenesulfonate salts of the title compound, or solvates thereof, or crystalline forms thereof; to a pharmaceutical composition comprising a pharmaceutically effective amount of the salts, including crystalline forms thereof, and a pharmaceutically acceptable carrier; and to the use of the salts, including crystalline forms thereof, for treating a patient suffering from, or subject to, a pathol. condition capable of being ameliorated by inhibiting IKK-2, and methods related thereto.

IT 1147862-78-9DP, salts 1147940-42-8P  
 1147940-43-9P 1147940-44-0P 1147940-45-1P  
 RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (salts of N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(2,6-dimethyl-4-morpholinyl)-2-oxoethyl]-6,6-dimethyl-morpholinecarboxamide)  
 RN 1147862-78-9 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(2R,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.





RN 1147940-42-8 CAPLUS

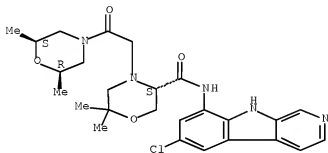
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(2R,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)-, (2R,3R)-2,3-dihydroxybutanedioate (2:1) (CA INDEX NAME)

CM 1

CRN 1147862-78-9

CMF C26 H32 Cl N5 O4

Absolute stereochemistry.

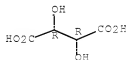


CM 2

CRN 87-69-4

CMF C4 H6 O6

Absolute stereochemistry.

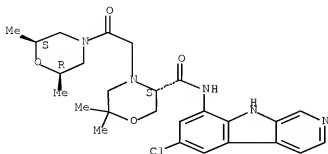


RN 1147940-43-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-

[(2R,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-,  
hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



● HCl

RN 1147940-44-0 CAPLUS

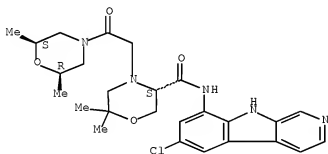
CN Propanedioic acid, compd. with (3S)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(2R,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-3-morpholinecarboxamide (1:1) (CA INDEX NAME)

CM 1

CRN 1147862-78-9

CMF C26 H32 Cl N5 O4

Absolute stereochemistry.



CM 2

CRN 141-82-2

CMF C3 H4 O4

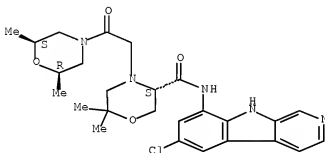
HO2C—CH2—CO2H

RN 1147940-45-1 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-  
 [(2R,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)-,  
 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

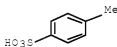
CRN 1147862-78-9  
 CMF C26 H32 Cl N5 O4

Absolute stereochemistry.



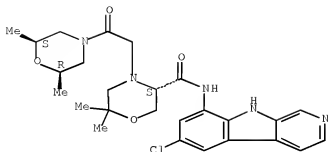
CM 2

CRN 104-15-4  
 CMF C7 H8 O3 S



IT 1147862-78-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (salts of N-(6-chloro-9H-pyrido[3,4-b]  
 indol-8-yl)-4-[2-(2,6-dimethyl-4-morpholinyl)-2-oxoethyl]-6,6-dimethyl-  
 morpholinecarboxamide)  
 RN 1147862-78-9 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-  
 [(2R,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA  
 INDEX NAME)

Absolute stereochemistry.



IT 1147940-46-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(salts of N-(6-chloro-9H-pyrido[3,4-b]

indol-8-yl)-4-[(2,6-dimethyl-4-morpholinyl)-2-oxoethyl]-6,6-dimethyl-morpholinecarboxamide)

RN 1147940-46-2 CAPLUS

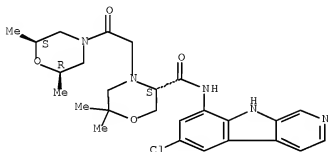
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2R,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)-, (2R,3R)-2,3-dihydroxybutanedioate, hydrate (2:1:?) (CA INDEX NAME)

CM 1

CRN 1147862-78-9

CMF C26 H32 Cl N5 O4

Absolute stereochemistry.

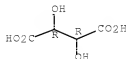


CM 2

CRN 87-69-4

CMF C4 H6 O6

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 44 CAPLUS COPYRIGHT 2010 ACS ON STN

ACCESSION NUMBER: 2009:44944 CAPLUS Full-text

DOCUMENT NUMBER: 150:229351

TITLE: Compensatory IKK $\alpha$  activation of classical NF- $\kappa$ B signaling during IKK $\beta$  inhibition identified by an RNA interference sensitization screen

AUTHOR(S): Lam, Lloyd T.; Davis, R. Eric; Ngo, Vu N.; Lenz, Georg; Wright, George; Xu, Weihong; Zhao, Hong; Yu, Xin; Dang, Lenny; Staudt, Louis M.

CORPORATE SOURCE: Metabolism Branch, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD, 20892, USA

SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2008), 105(52), 20798-20803  
CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

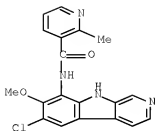
AB A subtype of diffuse large B-cell lymphoma (DLBCL), termed activated B-cell-like (ABC) DLBCL, depends on constitutive nuclear factor- $\kappa$ B (NF- $\kappa$ B) signaling for survival. Small mol. inhibitors of I $\kappa$ B kinase  $\beta$  (IKK $\beta$ ), a key regulator of the NF- $\kappa$ B pathway, kill ABC DLBCL cells and hold promise for the treatment of this lymphoma type. We conducted an RNA interference genetic screen to investigate potential mechanisms of resistance of ABC DLBCL cells to IKK $\beta$  inhibitors. We screened a library of small hairpin RNAs (shRNAs) targeting 500 protein kinases for shRNAs that would increase the killing of an ABC DLBCL cell line in the presence of a small mol. IKK $\beta$  inhibitor. Two independent shRNAs targeting IKK $\alpha$  synergized with the IKK $\beta$  inhibitor to kill three different ABC DLBCL cell lines but were not toxic by themselves. Surprisingly, IKK $\alpha$  shRNAs blocked the classical rather than the alternative NF- $\kappa$ B pathway in ABC DLBCL cells, as judged by inhibition of I $\kappa$ B $\alpha$  phosphorylation. IKK $\alpha$  shRNA toxicity was reversed by coexpression of wild-type but not kinase inactive forms of IKK $\alpha$ , suggesting that IKK $\alpha$  may directly phosphorylate I $\kappa$ B $\alpha$  under conditions of IKK $\beta$  inhibition. In models of physiolo. NF- $\kappa$ B pathway activation by CARD11 or tumor necrosis factor- $\alpha$ , compensatory IKK $\alpha$  activity was also observed with IKK $\beta$  inhibition. These results suggest that therapy for ABC DLBCL may be improved by targeting both IKK $\alpha$  and IKK $\beta$ , possibly through CARD11 inhibition.

IT 783348-36-7

RL: PAC (Pharmacological activity); BIOL (Biological study)  
(MLN 120B; compensatory IKK $\alpha$  activation of classical NF- $\kappa$ B signaling during IKK $\beta$  inhibition identified by RNA interference sensitization screen)

RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD  
(5 CITINGS)  
REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:24556 CAPLUS Full-text

DOCUMENT NUMBER: 150:136620

TITLE: Methods and compositions inducing JNK phosphorylation  
and tumor apoptosis for combinational anticancer  
treatments

PATENT ASSIGNEE(S): Yu, Ming, USA

SOURCE: PCT Int. Appl., 92pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009006555	A2	20090108	WO 2008-US69106	20080702
WO 2009006555	A3	20090319		
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				

PRIORITY APPLN. INFO.: US 2007-929535P P 20070702

AB This invention describes methods and pharmaceutical compns. for combinational cancer treatments that are capable of inducing JNK (c-Jun N-terminal kinase) phosphorylation and induce programmed cell death. It also identified genes as target for anti-cancer drug development and enhancement of the chemotherapeutic drug effect for the treatment of cancer. This invention points to a novel method and principle for a new avenue of developing more efficient and low or non cytotoxic cancer treatment. The invention is based on two findings: (1) The Cell Proliferation Reagent WST-1 (WST-1r), when combined with DNA-transfection vector pUC19 and an IKK (IKB kinase) inhibitor induces cell death in a synergetic manner in cancer cells and, (2) The effect

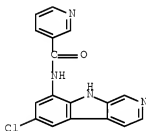
of pUC19 vector in the induction of cell death resides in its DNA sequence. Blast anal. of the pUC19 DNA sequence resulted in several short matches to human transcripts and to flanking regions of multiple genes, including TRPC6, SH3PXD2B, C6orf108, TTBK1, MAGI3, and TMEM182. The siRNAs of some of these sequences and the siRNAs against some of above genes were capable of acting as substitutes for the Puc19 for the triple combination treatment. The WST-1 reagent (WST-1r) is composed of WST-1, a tetrazolium salt, and mPMS (1-methoxy-5-methylphenazinium Me sulfate, 1-mPMS), an electron coupling reagent, each representing a class of chems. that can be used to target JNK-ROS-NFkB metabolic pathway in cancer cells. The concentration and the ratio of WST-1 and mPMS could be adjusted and optimized to maintain synergistic induction of cancer cell death while avoiding triggering the direct toxicity by the ROS (reactive oxygen species). It was also shown that apigenin is capable of substituting for the pUC19 DNA transfection and IKK inhibitor, in combination with WST-1 to reach the synergetic induction of cancer cell death. Anticancer effect is Apigenin and WST-1 dose and time dependent and is highly reproducible for multiple different human cancer cell lines.

IT 431898-65-6, P51145

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(IKK inhibitor, combination with; methods and compns. inducing JNK phosphorylation and tumor apoptosis for combinational anticancer treatments)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



L3 ANSWER 7 OF 44 CAPLUS COPYRIGHT 2010 ACS ON STN

ACCESSION NUMBER: 2008:1451541 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 150:16131

TITLE: Inhibiting the signs of aging by inhibiting  
NF-kB activation

INVENTOR(S): Robbins, Paul D.; Niedernhofer, Laura J.

PATENT ASSIGNEE(S): University of Pittsburgh- Of the Commonwealth System  
of Higher Education, USA

SOURCE: PCT Int. Appl., 57pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008148016	A1	20081204	WO 2008-US64735	20080523

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

US 20090075902 A1 20090319 US 2008-126634 20080523

PRIORITY APPLN. INFO.: US 2007-940312P P 20070525

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

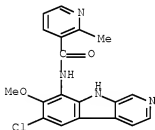
AB The invention discloses methods and compns. for reducing and/or delaying one or more signs of aging which comprise inhibiting NF- $\kappa$ B activation. It is based, at least in part, on the discovery that a peptide which inhibits IKK- $\beta$  interaction with NEMO, linked to a transducing peptide, inhibits the development of various indicia of senescence in a murine model of aging, Erccl-1A mice.

IT 783348-36-7, ML120B

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(NF- $\kappa$ B activation inhibitors for inhibiting signs of aging)

RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 44 CAPLUS COPYRIGHT 2010 ACS ON STN

ACCESSION NUMBER: 2008:1307396 CAPLUS Full-text

DOCUMENT NUMBER: 149:506107

TITLE: IGFR inhibitor antitumor combination for treatment of cancer therapy

INVENTOR(S): Arnold, Lee D.; J1, Qun-Sheng; Buck, Elizabeth; Haley, John D.; Mulvihill, Mark J.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 131pp., Cont.-in-part of U.S. Ser. No. 787,236.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English



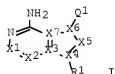
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080267957	A1	20081030	US 2008-72269	20080225
WO 2008018881	A1	20080214	WO 2006-US31433	20060810
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 2051982	A1	20090429	EP 2006-801288	20060810
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
US 20080299113	A1	20081204	US 2006-641346	20061218
US 20080014200	A1	20080117	US 2007-787236	20070413
PRIORITY APPLN. INFO.:				
			US 2005-752243P	P 20051219
			US 2006-641346	A2 20061218
			US 2007-787236	A2 20070413
			WO 2006-US31433	W 20060810

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 149:506107

GI



AB Methods and comps. for treating tumors or tumor metastases in a patient, comprising administering to the patient simultaneously or sequentially (a) a therapeutically effective amount of an anti-cancer agent and (b) an IGF1R inhibitor compound I, with or without addnl. agents or treatments, such as other anti-cancer drugs or radiation therapy. Suitable IGF1R inhibitor may be represented by formula I where X1, X2, and X5=N or -C(E1), etc.; X3, X4, X6, and X7=N or C; R1=absent, C0-C10alkyl, etc.; E1=halogen, CF3, etc.; and Q1 is II where X11,X12,X13,X14,X15, and X16=N, etc.; and G1=halogen, CF3, etc. Imidazopyrazine derivs. inhibiting IGF-1R potentiated EGF-1R inhibitor Tarceva-induced apoptosis in solid tumor cells.

IT 431898-65-6, PS-1145

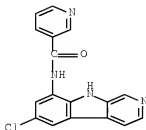
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(IGF1R inhibitor antitumor combination for treatment of cancer)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX

NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L3 ANSWER 9 OF 44 CAPLUS COPYRIGHT 2010 ACS ON STN

ACCESSION NUMBER: 2008:976445 CAPLUS Full-text

DOCUMENT NUMBER: 150:89875

TITLE: Potent Inhibition of Thyroid Cancer Cells by the MEK  
Inhibitor PD0325901 and Its Potentiation by  
Suppression of the PI3K and NF- $\kappa$ B Pathways

AUTHOR(S): Liu, Dingxie; Xing, Mingzhao

CORPORATE SOURCE: Division of Endocrinology and Metabolism, Department  
of Medicine, School of Medicine, The Johns Hopkins  
University, Baltimore, MD, USA

SOURCE: Thyroid (2008), 18(8), 853-864

CODEN: THYRER; ISSN: 1050-7256

PUBLISHER: Mary Ann Liebert, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We recently demonstrated inhibition of thyroid cancer cells by the MEK inhibitor CI-1040. The objective of this study was to use a potent new-generation MEK inhibitor PD0325901 to further investigate the therapeutic potential of specifically targeting MEK in the MAP kinase pathway for thyroid cancer. We examined the effects of PD0325901 on a variety of cellular and mol. activities of thyroid cancer cell lines with distinct genotypes. PD0325901 remarkably inhibited MAP kinase pathway signaling in the thyroid cancer cells tested. It potently inhibited cell proliferation (IC<sub>50</sub> = 0.059-0.783  $\mu$ M) and arrested cell cycle at the G<sub>0</sub>/G<sub>1</sub> phase of cells harboring BRAF or RAS mutations but not cells harboring wild-type alleles or the RET/PTC1 rearrangement. Synergistic inhibitory effects were observed when PD0325901 was combined with phosphatidylinositol 3-kinase (PI3K) or NF- $\kappa$ B pathway inhibitors in most cells, including the RET/PTC1-harboring cells. PD0325901 could inhibit invasion and anchorage-independent growth of thyroid cancer cells independently of the type of genetic alterations. This compound did not seem to have significant proapoptotic effects, however. The MEK inhibitor PD0325901 has a wide range of potent inhibitory effects on thyroid cancer cells, some of which seemed to be genotype-selective, consistent with the results previously observed with an early-generation MEK inhibitor, CI-1040. The data provide further evidence that targeted inhibition of MEK may be therapeutically effective for thyroid cancer, particularly if the PI3K and NF- $\kappa$ B pathways are concurrently inhibited.

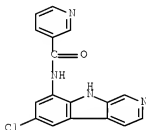
IT 431898-65-6, PS1145

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

(PD0325901 showed synergistic inhibitory effect when combined with  
LY294002 or PS1145 in human thyroid cancer cell)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX  
NAME)



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD  
(7 CITINGS)

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 10 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:770584 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 149:70442

TITLE: Monophosphates as mutual prodrugs of anti-inflammatory  
signal transduction modulators (aistm's) and  
β-agonists for the treatment of pulmonary  
inflammation and bronchoconstriction

INVENTOR(S): Baker, William R.; Stasiak, Marcin; Swaminathan,  
Sundaramoorthi

PATENT ASSIGNEE(S): Gilead Sciences, Inc., USA

SOURCE: PCT Int. Appl., 95pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

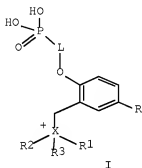
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008076265	A1	20080626	WO 2007-US25361	20071212
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2007334541	A1	20080626	AU 2007-334541	20071212
CA 2670730	A1	20080626	CA 2007-2670730	20071212

EP 2125841 A1 20091202 EP 2007-853345 20071212  
 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR  
 IN 2009KN02012 A 20090619 IN 2009-KN2012 20090527  
 PRIORITY APPLN. INFO.: US 2006-874543P P 20061213  
 WO 2007-US25361 W 20071212  
 OTHER SOURCE(S): MARPAT 149:70442  
 GI

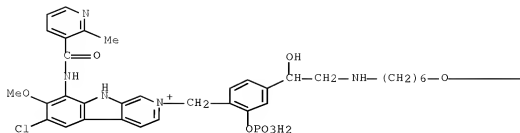


AB A mutual prodrug, I (X = quaternizable moiety; L = bond, CH<sub>2</sub>O, etc.; R = C1-12 hydroxyaminoalkyl, hetero (un)substituted arylalkyl, etc.; R<sub>1</sub>R<sub>2</sub>R<sub>3</sub> = muscarinic receptor antagonist or its prodrug linking the parent MRA mol. to X) and pharmaceutical salts thereof, of an AISTM and a β-agonist in formulation for delivery by aerosolization to inhibit pulmonary inflammation and bronchoconstriction is described. The mutual prodrug is preferably formulated in a small volume solution (10-500 μL) dissolved in a quarter normal saline having pH between about 5.0 and 7.0 for the treatment of respiratory tract inflammation and bronchoconstriction by an aerosol having mass median average diameter predominantly between about 1 to 5 μ, produced by nebulization or by dry powder inhaler.

IT 1034189-78-0P 1034189-79-1P 1034189-80-4P  
 1034189-81-5P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of monophosphates as mutual prodrugs of anti-inflammatory signal transduction modulators (aistm's) and beta-agonists for treatment of pulmonary inflammation and bronchoconstriction)

RN 1034189-78-0 CAPLUS

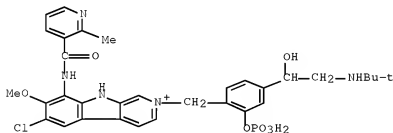
CN 9H-Pyrido[3,4-b]indolium, 6-chloro-2-[[4-[1-hydroxy-2-[[6-(4-phenylbutoxy)hexyl]amino]ethyl]-2-(phosphonoxy)phenyl]methyl]-7-methoxy-8-[[2-methyl-3-pyridinyl]carbonyl]amino]- (CA INDEX NAME)



— (CH<sub>2</sub>)<sub>4</sub>—Ph

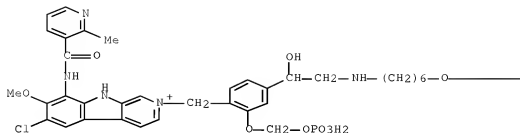
RN 1034189-79-1 CAPLUS

CN 9H-Pyrido[3,4-b]indolium, 6-chloro-2-[[4-[2-[(1,1-dimethylethyl)amino]-1-hydroxyethyl]-2-(phosphonooxy)phenyl]methyl]-7-methoxy-8-[[2-methyl-3-pyridinyl]carbonyl]amino]- (CA INDEX NAME)



RN 1034189-80-4 CAPLUS

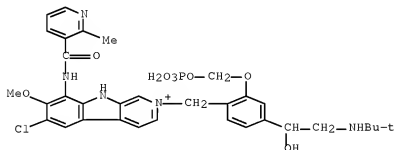
CN 9H-Pyrido[3,4-b]indolium, 6-chloro-2-[[4-[1-hydroxy-2-[[6-(4-phenylbutoxy)hexyl]amino]ethyl]-2-(phosphonooxy)methoxy]phenyl]methyl]-7-methoxy-8-[[2-methyl-3-pyridinyl]carbonyl]amino]- (CA INDEX NAME)



— (CH<sub>2</sub>)<sub>4</sub>—Ph

RN 1034189-81-5 CAPLUS

CN 9H-Pyrido[3,4-b]indolium, 6-chloro-2-[[4-[2-[(1,1-dimethylethyl)amino]-1-hydroxyethyl]-2-[(phosphonoxy)methoxy]phenyl]methyl]-7-methoxy-8-[[2-methyl-3-pyridinyl]carbonyl]amino]- (CA INDEX NAME)

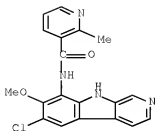


IT 783348-36-7

RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of monophosphates as mutual prodrugs of anti-inflammatory signal transduction modulators (aism's) and beta-agonists for treatment of pulmonary inflammation and bronchoconstriction)

RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 11 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:431542 CAPLUS Full-text

DOCUMENT NUMBER: 148:377372

TITLE: Cooperative signaling through the signal transducer and activator of transcription 3 and nuclear factor- $\kappa$ B pathways in subtypes of diffuse large B-cell lymphoma

AUTHOR(S): Lam, Lloyd T.; Wright, George; Davis, R. Eric; Lenz, Georg; Farinha, Pedro; Dang, Lenny; Chan, John W.; Rosenwald, Andreas; Gascoyne, Randy D.; Staudt, Louis M.

CORPORATE SOURCE: Metabolism Branch, Center for Cancer Research, National Cancer Institute (NCI), National Institutes of Health (NIH), Bethesda, MD, USA

SOURCE: Blood (2008), 111(7), 3701-3713  
CODEN: BLOOAW; ISSN: 0006-4971

PUBLISHER: American Society of Hematology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The activated B cell-like (ABC) subgroup of diffuse large B-cell lymphoma (DLBCL) is characterized by constitutive activation of the nuclear factor- $\kappa$ B (NF- $\kappa$ B) pathway. In this study, we showed that the NF- $\kappa$ B pathway induced the expression of the cytokines interleukin (IL)-6 and IL-10 in ABC DLBCL cell lines, which also have high levels of total and phosphorylated signal transducer and activator of transcription (STAT) 3 protein, suggesting autocrine signaling. Using RNA interference for STAT3, we defined a gene expression signature of IL-6 and IL-10 signaling through STAT3. Based on this signature, we constructed a mol. predictor of STAT3 signaling that defined a subset of ABC DLBCL tumors with high expression of STAT3, IL-6, and/or IL-10 and their downstream targets. Although the STAT3-high and STAT3-low subsets had equivalent expression of genes that distinguish ABC DLBCL from germinal center B cell-like DLBCL, STAT3-high ABC DLBCLs had higher expression of signatures that reflected NF- $\kappa$ B activity, proliferation, and glycolysis. A small-mol. inhibitor of Janus kinase signaling, which blocked STAT3 signature expression, was toxic only for ABC DLBCL lines and synergized with an inhibitor of NF- $\kappa$ B signaling. These findings suggest that the biol. interplay between the STAT3 and NF- $\kappa$ B pathways may be exploited for the treatments of a subset of ABC DLBCLs.

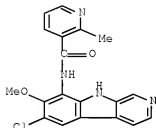
IT 783348-36-7, MLN 120B

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(interleukin-6 and interleukin-10 signaling through STAT3 and

NF-κB in diffuse large B-cell lymphoma and new strategies for therapy)

RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 12 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:74166 CAPLUS Full-text

DOCUMENT NUMBER: 148:135995

TITLE: Combined treatment with 6,6-bicyclic ring substituted heterobicyclic protein kinase inhibitor and anti-cancer agents

INVENTOR(S): Arnold, Lee D.; Ji, Qun-Sheng; Mulvihill, Mark Joseph

PATENT ASSIGNEE(S): OSI Pharmaceuticals, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 225 pp., Cont.-in-part of U.S. Ser. No. 641,346, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080014200	A1	20080117	US 2007-787236	20070413
WO 2008018881	A1	20080214	WO 2006-US31433	20060810
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
EP 2051982	A1	20090429	EP 2006-801288	20060810
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,			



IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,  
 BA, HR, MK, RS  
 US 20080299113 A1 20081204 US 2006-641346 20061218  
 US 20080267957 A1 20081030 US 2008-72269 20080225  
 PRIORITY APPLN. INFO.: US 2005-752243P P 20051219  
 US 2006-641346 B2 20061218  
 WO 2006-US31433 W 20060810  
 US 2007-787236 A2 20070413

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 148:135995

AB The present invention provides a method for treating tumors or tumor metastases in a patient, comprising administering to the patient simultaneously or sequentially a therapeutically effective amount of an anti-cancer agent and an IGF1R inhibitor compound, presented here, in combination, with or without adnln. agents or treatments, such as other anti-cancer drugs or radiation therapy.

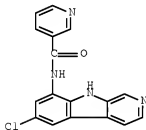
IT 431898-65-6, PS-1145

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(combined treatment with bicyclic ring substituted heterobicyclic protein kinase inhibitor and anticancer agents)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



L3 ANSWER 13 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:1355768 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 148:232472

TITLE: The selectivity of protein kinase inhibitors: a further update

AUTHOR(S): Bain, Jenny; Plater, Lorna; Elliott, Matt; Shpiro, Natalia; Hastie, C. James; McLauchlan, Hilary; Klevernic, Iva; Arthur, J. Simon C.; Alessi, Dario R.; Cohen, Philip

CORPORATE SOURCE: Division of Signal Transduction Therapy, College of Life Sciences, University of Dundee, Scotland, DD1 5EH, UK

SOURCE: Biochemical Journal (2007), 408(3), 297-315

CODEN: BIJOAK; ISSN: 0264-6021

PUBLISHER: Portland Press Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The specificities of 65 compds. reported to be relatively specific inhibitors of protein kinases have been profiled against a panel of 70-80 protein

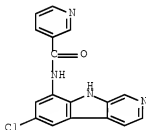
kinases. On the basis of this information, the effects of compds. that we have studied in cells and other data in the literature, we recommend the use of the following small-mol. inhibitors: SB 203580/SB202190 and BIRB 0796 to be used in parallel to assess the physiol. roles of p38 MAPK (mitogen-activated protein kinase) isoforms, PI-103 and wortmannin to be used in parallel to inhibit phosphatidylinositol (phosphoinositide) 3-kinases, PP1 or PP2 to be used in parallel with Src-11 (Src inhibitor-1) to inhibit Src family members; PD 184352 or PD 0325901 to inhibit MKK1 (MAPK kinase-1) or MKK1 plus MKK5, Akt-I-1/2 to inhibit the activation of PKB (protein kinase B/Akt), rapamycin to inhibit TORC1 [mTOR (mammalian target of rapamycin)-raptor (regulatory associated protein of mTOR) complex], CT 99021 to inhibit GSK3 (glycogen synthase kinase 3), BI-D1870 and SL0101 or FMK (fluoromethylketone) to be used in parallel to inhibit RSK (ribosomal S6 kinase), D4476 to inhibit CK1 (casein kinase 1), VX680 to inhibit Aurora kinases, and roscovitine as a pan-CDK (cyclin-dependent kinase) inhibitor. We have also identified harmine as a potent and specific inhibitor of DYRK1A (dual-specificity tyrosine-phosphorylated and -regulated kinase 1A) in vitro. The results have further emphasized the need for considerable caution in using small-mol. inhibitors of protein kinases to assess the physiol. roles of these enzymes. Despite being used widely, many of the compds. that we analyzed were too non-specific for useful conclusions to be made, other than to exclude the involvement of particular protein kinases in cellular processes.

IT 431898-65-6, PS 1145

RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); BSU (Biological study, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
(selectivity of protein kinase inhibitors)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 206 THERE ARE 206 CAPLUS RECORDS THAT CITE THIS RECORD (207 CITINGS)  
REFERENCE COUNT: 98 THERE ARE 98 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 14 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:1062479 CAPLUS Full-text

DOCUMENT NUMBER: 147:392042

TITLE: Continuous delivery of D-luciferin by implanted microosmotic pumps enables true real-time bioluminescence imaging of luciferase activity in vivo  
AUTHOR(S): Gross, Shimon; Abraham, Ute; Prior, Julie L.; Herzog, Erik D.; Piwnicka-Worms, David  
CORPORATE SOURCE: Molecular Imaging Center, Mallinckrodt Institute of

Radiology, Department of Molecular Biology and  
Pharmacology, and Department of Biology, Washington  
University in St. Louis, St. Louis, MO, USA  
Molecular Imaging (2007), 6(2), 121-130  
CODEN: MIOMBP; ISSN: 1535-3508

SOURCE:

PUBLISHER:

DOCUMENT TYPE:

LANGUAGE:

BC Decker Inc.

Journal

English

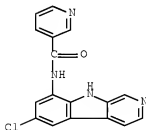
AB Bioluminescence imaging (BLI) of luciferase reporters in small animal models offers an attractive approach to monitor regulation of gene expression, signal transduction, and protein-protein interactions, as well as following tumor progression, cell engraftment, infectious pathogens, and target-specific drug action. Conventional BLI can be repeated within the same animal after bolus reinjections of a bioluminescent substrate. However, intervals between image acquisitions are governed by substrate pharmacokinetics and excretion, therefore restricting temporal resolution of reinjection protocols to the order of hours, limiting analyses of processes in vivo with short time constants. To eliminate these constraints, we examined use of implanted micro-osmotic pumps for continuous, long-term delivery of bioluminescent substrates. Pump-assisted D-luciferin delivery enabled BLI for  $\geq 7$  days from a variety of luciferase reporters. Pumps allowed direct repetitive imaging at  $< 5$ -min intervals of the pharmacodynamics of proteasome- and IKK-inhibiting drugs in mice bearing tumors stably expressing ubiquitin-firefly luciferase or I $\kappa$ B $\alpha$ -firefly luciferase fusion reporters. Circadian oscillations in the olfactory bulbs of transgenic rats expressing firefly luciferase under the control of the period1 promoter also were temporally resolved over the course of several days. We conclude that implanted pumps provide reliable, prolonged substrate delivery for high temporal resolution BLI, traversing complications of repetitive substrate injections.

IT 431898-65-6, PS-1145

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(continuous delivery of D-luciferin by implanted microosmotic pump  
enable real-time BLI of pharmacol. of I $\kappa$ B $\alpha$  kinase  
inhibiting PS-1145 in mouse bearing firefly luciferase or  
I $\kappa$ B $\alpha$ -firefly luciferase expressing human cervical cancer)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX  
NAME)



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD  
(6 CITINGS)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

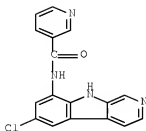
ACCESSION NUMBER: 2007:1060852 CAPLUS Full-text  
 DOCUMENT NUMBER: 147:378396  
 TITLE: nf-kb activation inhibitors for treating muscular wasting diseases  
 INVENTOR(S): Guttridge, Denis C.; Baldwin, Albert S.  
 PATENT ASSIGNEE(S): Theralogics, Inc., USA  
 SOURCE: PCT Int. Appl., 64 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007106884	A2	20070920	WO 2007-US64057	20070315
WO 2007106884	A3	20080529		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
CA 2646316	A1	20070920	CA 2007-2646316	20070315
US 20070225315	A1	20070927	US 2007-686623	20070315
EP 2001455	A2	20081217	EP 2007-758595	20070315
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS			

PRIORITY APPLN. INFO.: US 2006-782427P P 20060315  
 WO 2007-US64057 W 20070315

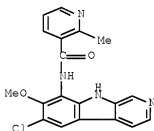
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Methods for treating muscular wasting diseases such as Duchenne muscular dystrophy are disclosed. Specifically, the methods include administering to a subject in need of treatment a nuclear factor kappa B (NF-KB) activation inhibitor capable of blocking the activation of NF-KB. Administration of peptides comprised of a Nuclear Factor Essential (NEMO) binding domain to a mouse model of Duchenne muscular dystrophy significantly increased diaphragm contractions.  
 IT 431898-65-6 783348-36-7  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (nf-kb activation inhibitors for treating muscular wasting diseases)  
 RN 431898-65-6 CAPLUS  
 CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



L3 ANSWER 16 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:930813 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 148:992

TITLE:

Bortezomib inhibits human osteoclastogenesis

AUTHOR(S):

von Metzler, I.; Krebbel, H.; Hecht, M.; Manz, R. A.; Fleissner, C.; Mieth, M.; Kaiser, M.; Jakob, C.; Sterz, J.; Kleeberg, L.; Heider, U.; Sezer, O.

CORPORATE SOURCE:

Department of Hematology and Oncology, Charite - Universitaetsmedizin Berlin, Berlin, Germany

SOURCE:

Leukemia (2007), 21(9), 2025-2034

CODEN: LEUKED; ISSN: 0887-6924

PUBLISHER:

Nature Publishing Group

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB In multiple myeloma, the overexpression of receptor activator of nuclear factor kappa B (NF- $\kappa$ B) ligand (RANKL) leads to the induction of NF- $\kappa$ B and activator protein-1 (AP-1)-related osteoclast activation and enhanced bone resorption. The purpose of this study was to examine the mol. and functional effects of proteasome inhibition in RANKL-induced osteoclastogenesis. Furthermore, we aimed to compare the outcome of proteasome vs. selective NF- $\kappa$ B inhibition using bortezomib (PS-341) and I- $\kappa$ B kinase inhibitor PS-1145. Primary human osteoclasts were derived from CD14<sup>+</sup> precursors in presence of RANKL and macrophage colony-stimulating factor (M-CSF). Both bortezomib and PS-1145 inhibited osteoclast differentiation in a dose- and time-dependent manner and furthermore, the bone resorption activity of osteoclasts. The mechanisms of action involved in early osteoclast differentiation were found

to be related to the inhibition of p38 mitogen-activated protein kinase pathways, whereas the later phase of differentiation and activation occurred due to inhibition of p38, AP-1 and NF- $\kappa$ B activation. The AP-1 blockade contributed to significant reduction of osteoclastic vascular endothelial growth factor production. In conclusion, our data demonstrate that proteasomal inhibition should be considered as a novel therapeutic option of cancer-induced lytic bone disease.

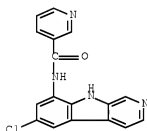
IT 431898-65-6, PS-1145

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(I- $\kappa$ B kinase inhibitor PS-1145 inhibited osteoclast differentiation in dose- and time-dependent manner and bone resorption activity of human osteoclast)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 29 THERE ARE 29 CAPLUS RECORDS THAT CITE THIS RECORD (29 CITINGS)  
 REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:749003 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 147:314170

TITLE: Nuclear factor- $\kappa$ B activation: a molecular therapeutic target for estrogen receptor-negative and epidermal growth factor receptor family receptor-positive human breast cancer

AUTHOR(S): Singh, Sindhu; Shi, Qian; Bailey, Shannon T.; Palczewski, Marek J.; Pardee, Arthur B.; Iglehart, J. Dirk; Biswas, Debajit K.

CORPORATE SOURCE: Departments of Cancer Biology and Medical Oncology, Dana-Farber Cancer Institute, Department of Surgery, Brigham and Women's Hospital, Boston, MA, USA

SOURCE: Molecular Cancer Therapeutics (2007), 6(7), 1973-1982  
 CODEN: MCTOCF; ISSN: 1535-7163

PUBLISHER: American Association for Cancer Research

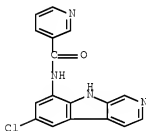
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Nuclear factor- $\kappa$ B (NF- $\kappa$ B), a transcription factor with pleiotropic effects, is a downstream mediator of growth signaling in estrogen receptor (ER)-neg. and erbB family particularly erbB2 (HER-2/neu) receptor-pos. cancer. We previously reported activation of NF- $\kappa$ B in ER-neg. breast cancer cells and breast tumor specimens, but the consequence of inhibiting NF- $\kappa$ B activation in

this subclass of breast cancer has not been shown. In this study, we investigated the role of NF- $\kappa$ B activation by studying the tumorigenic potential of cells expressing genetically manipulated, inducible, dominant-neg. inhibitory  $\kappa$ B kinase (IKK $\beta$ ) in xenograft tumor model. Conditional inhibition of NF- $\kappa$ B activation by the inducible expression of dominant-neg. IKK $\beta$  simultaneously blocked cell proliferation, reinstated apoptosis, and dramatically blocked xenograft tumor formation. Secondly, the humanized anti-erbB2 antibody trastuzumab (Herceptin) and the specific IKK inhibitor NF- $\kappa$ B essential modifier-binding domain peptide both blocked NF- $\kappa$ B activation and cell proliferation and reinstated apoptosis in two ER-neg. and erbB2-pos. human breast cancer cell lines that are used as representative model systems. Combinations of these two target-specific inhibitors synergistically blocked cell proliferation at concns. that were singly ineffective. Inhibition of NF- $\kappa$ B activation with two other low mol. weight compds., PS1145 and PS341, which inhibited IKK activity and proteasome-mediated phosphorylated inhibitory  $\kappa$ B protein degradation, resp., blocked erbB2-mediated cell growth and reversed antiapoptotic machinery. These results implicate NF- $\kappa$ B activation in the tumorigenesis and progression of ER-neg. breast cancer. It is postulated that this transcription factor and its activation cascade offer therapeutic targets for erbB2-pos. and ER-neg. breast cancer.

IT 431898-65-6, PS1145  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (nuclear factor- $\kappa$ B signaling as mol. therapeutic target for estrogen receptor-neg. and epidermal growth factor receptor family receptor-pos. human breast cancer)  
 RN 431898-65-6 CAPLUS  
 CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)  
 REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 18 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2007:513294 CAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 146:475302  
 TITLE: Repression of inflammatory gene expression in human pulmonary epithelial cells by small-molecule I $\kappa$ B kinase inhibitors  
 AUTHOR(S): Newton, Robert; Holden, Neil S.; Catley, Matthew C.; Oyelusi, Wale; Leigh, Richard; Proud, David; Barnes, Peter J.

CORPORATE SOURCE: Respiratory Research Group, Departments of Cell  
Biology and Anatomy, Physiology and Biophysics, and  
Medicine, University of Calgary, Calgary, AB, Can.  
SOURCE: Journal of Pharmacology and Experimental Therapeutics  
(2007), 321(2), 734-742  
CODEN: JPETAB; ISSN: 0022-3565  
PUBLISHER: American Society for Pharmacology and Experimental  
Therapeutics  
DOCUMENT TYPE: Journal  
LANGUAGE: English

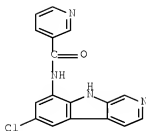
AB The airway epithelium is critical in the pathogenesis of chronic inflammatory diseases, such as asthma and chronic obstructive pulmonary disease, and, by expressing numerous inflammatory genes, plays a prominent role in disease exacerbations. Since inflammatory gene expression often involves the transcription factor nuclear factor (NF)- $\kappa$ B, this signaling pathway represents a site for anti-inflammatory intervention. As the airway epithelium is targeted by inhaled therapeutic agents, for example corticosteroids, human A549 pulmonary cells and primary human bronchial epithelial (HBE) cells were selected to evaluate inhibitor of  $\kappa$ B kinase (IKK) inhibitors. In A549 cells, interleukin (IL)-1 $\beta$  and tumor necrosis factor (TNF)  $\alpha$  increased phosphorylation of I $\kappa$ B $\alpha$ , and this was followed by loss of I $\kappa$ B $\alpha$ , induction of NF- $\kappa$ B DNA binding, and the induction of NF- $\kappa$ B-dependent transcription. These events were repressed by the IKK-selective inhibitors, PS-1145 [N-(6-chloro-9H- $\beta$ -carbolin-8-yl)nicotinamide] and ML120B [N-(6-chloro-7-methoxy-9H- $\beta$ -carbolin-8-yl)-2-methylnicotinamide]. Inhibition of NF- $\kappa$ B-dependent transcription was concentration-dependent and correlated with loss of intercellular adhesion mol. (ICAM)-1 expression. Similarly, IL-1 $\beta$  and TNF $\alpha$ -induced expression of IL-6, IL-8, granulocyte macrophage-colony-stimulating factor (GM-CSF), regulated and activation normal T cell expressed and secreted (RANTES), growth-related oncogene  $\alpha$ , and monocyte chemoattractant protein-1 (MCP-1) was also significantly repressed. Likewise, PS-1145 and ML120B profoundly reduced NF- $\kappa$ B-dependent transcription induced by IL-1 $\beta$  and TNF $\alpha$  in primary HBE cells. Parallel effects on ICAM-1 expression and a significant repression of IL-8 release were observed. In contrast, the corticosteroid, dexamethasone, was without effect on NF- $\kappa$ B-dependent transcription or the expression of ICAM-1. The above data provide strong support for an anti-inflammatory effect of IKK2 inhibitors acting on the pulmonary epithelium and suggest that such compds. may prove beneficial in situations where traditional corticosteroid therapies prove inadequate.

IT 431898-65-6, PS-1145 783348-36-7, ML120B  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(repression of inflammatory gene expression in human pulmonary  
epithelial cells by small-mol. I $\kappa$ B kinase inhibitors)

RN 431898-65-6 CAPLUS

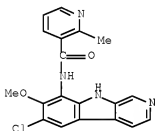
CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX  
NAME)





RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 29 THERE ARE 29 CAPLUS RECORDS THAT CITE THIS RECORD (29 CITINGS)  
 REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 19 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:152107 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 146:371811

TITLE: Use of molecular imaging to quantify response to IKK-2 inhibitor treatment in murine arthritis  
 Izmailova, Elena S.; Paz, Nancy; Alencar, Herlen; Chun, Miyoung; Schopf, Lisa; Hepperle, Michael; Lane, Joan H.; Harriman, Geraldine; Xu, Yajun; Ocain, Timothy; Weissleder, Ralph; Mahmood, Umar; Healy, Aileen M.; Jaffee, Bruce

CORPORATE SOURCE: Merrimack Pharmaceuticals, Cambridge, MA, USA

SOURCE: Arthritis & Rheumatism (2007), 56(1), 117-128

CODEN: ARHEAW; ISSN: 0004-3591

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Objective: The NF- $\kappa$ B signaling pathway promotes the immune response in rheumatoid arthritis (RA) and in rodent models of RA. NF- $\kappa$ B activity is regulated by the IKK-2 kinase during inflammatory responses. To elucidate how IKK-2 inhibition suppresses disease development, we used a combination of in vivo imaging, transcription profiling, and histopathol. technologies to study mice with antibody-induced arthritis. Methods: ML120B, a potent, small mol.

inhibitor of IKK-2, was administered to arthritic animals, and disease activity was monitored. NF- $\kappa$ B activity in diseased joints was quantified by in vivo imaging. Quant. reverse transcriptase-polymerase chain reaction was used to evaluate gene expression in joints. Protease-activated near-IR fluorescence (NIRF) in vivo imaging was applied to assess the amts. of active proteases in the joints. Results: Oral administration of ML120B suppressed both clin. and histopathol. manifestations of disease. In vivo imaging demonstrated that NF- $\kappa$ B activity in inflamed arthritic paws was inhibited by ML120B, resulting in significant suppression of multiple genes in the NF- $\kappa$ B pathway, i.e., KC, epithelial neutrophil-activating peptide 78, JE, intercellular adhesion mol. 1, CD3, CD68, tumor necrosis factor  $\alpha$ , interleukin-1 $\beta$ , interleukin-6, inducible nitric oxide synthase, cyclooxygenase 2, matrix metalloproteinase 3, cathepsin B, and cathepsin K. NIRF in vivo imaging demonstrated that ML120B treatment dramatically reduced the amount of active proteases in the joints. Conclusion: Our data demonstrate that IKK-2 inhibition in the murine model of antibody-induced arthritis suppresses both inflammation and joint destruction. In addition, this study highlights how gene expression profiling can facilitate the identification of surrogate biomarkers of disease activity and treatment response in an exptl. model of arthritis.

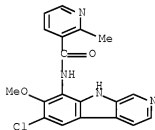
IT 783348-36-7, ML120B

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(ML120B reduced antibody-induced rheumatoid arthritis by suppressing multiple genes in nuclear factor  $\kappa$ B pathway and degradation of bone and cartilage in mouse)

RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)  
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 20 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2006:1252828 CAPLUS Full-text  
DOCUMENT NUMBER: 146:20338

TITLE: NF $\kappa$ B pathway inhibitors for treatment of muscular dystrophy

INVENTOR(S): Carlson, C. George; Samadi, Abbas  
PATENT ASSIGNEE(S): A. T. Still University of Health Sciences, USA  
SOURCE: PCT Int. Appl., 100pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006127930	A2	20061130	WO 2006-US20301	20060524
WO 2006127930	A3	20070426		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA AU 2006249851 A1 20061130 AU 2006-249851 20060524 CA 2613337 A1 20061130 CA 2006-2613337 20060524 US 20060280812 A1 20061214 US 2006-439714 20060524 EP 1888060 A2 20080220 EP 2006-771212 20060524 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR PRIORITY APPLN. INFO.: US 2005-684504P P 20050524 US 2006-762394P P 20060126 WO 2006-US20301 W 20060524				

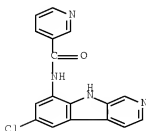
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Comps. and methods for treatment of individuals diagnosed with a dystrophin deficiency are disclosed. In particular, inhibitors of nuclear factor kappa B (NFkB) activation, such as pyrrolidine dithiocarbamate (PDTIC), have been shown to prevent and reverse muscle damage in animals lacking dystrophin. Such comps. and methods are useful in the treatment of individuals with muscular dystrophy. NFkB pathway inhibitor, sulfasalazine, significantly improved the resting membrane potential in dystrophic triangularis sterni muscles providing support for it's use in treatment of Duchenne muscular dystrophy.

IT 431898-65-6, PS-1145  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (NFkB pathway inhibitors for treatment of muscular dystrophy)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 21 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:1189144 CAPLUS Full-text

DOCUMENT NUMBER: 146:161336

TITLE: IKK $\beta$  inhibition protects against bone and cartilage destruction in a rat model of rheumatoid arthritis

AUTHOR(S): Schopf, Lisa; Savinainen, Anneli; Anderson, Karen; Kujawa, Julie; DuPont, Michelle; Silva, Matthew; Siebert, Elizabeth; Chandra, Sudeep; Morgan, Jennifer; Gangurde, Pranoti; Wen, Danyi; Lane, Joan; Xu, Yajun; Hepperle, Michael; Harriman, Geraldine; Ocain, Timothy; Jaffee, Bruce

CORPORATE SOURCE: Millennium Pharmaceuticals, Cambridge, MA, USA  
SOURCE: Arthritis & Rheumatism (2006), 54(10), 3163-3173  
CODEN: ARHEAW; ISSN: 0004-3591

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Objective. The IKK complex regulates NF- $\kappa$ B activation, an important pathway implicated in the rheumatoid arthritis (RA) disease process. This study was undertaken to assess the efficacy of N-(6-chloro-7-methoxy-9H- $\beta$ -carbolin-8-yl)-2-methylnicotinamide (ML120B), a potent and selective small mol. inhibitor of IKK $\beta$ . Methods. Polyarthritis was induced in rats by injection of Freund's complete adjuvant into the hind footpad. ML120B was administered orally twice daily, either prophylactically or therapeutically. Paw vols. and body wts. were measured every 2-3 days throughout the study. We assessed bone erosions by several methods: histol. evaluation, quant. micro-computed tomog. (micro-CT) imaging anal., and measurement of type I collagen fragments in the serum. Quant. polymerase chain reaction was used to evaluate expression of mRNA for genes related to inflammation and to bone and cartilage integrity. Results. Oral administration of ML120B inhibited paw swelling in a dose-dependent manner (median effective dosage 12 mg/kg twice daily) and offered significant protection against arthritis-induced weight loss as well as cartilage and bone erosion. We were able to directly demonstrate that NF- $\kappa$ B activity in arthritic joints was reduced after ML120B administration. Also, we observed that down-regulation of the NF- $\kappa$ B pathway via IKK $\beta$  inhibition dampened the chronic inflammatory process associated with rat adjuvant-induced arthritis. Conclusion. The results of the present study suggest that IKK $\beta$  inhibition is an effective therapeutic approach to treat both the inflammation and the bone/cartilage destruction observed in RA. Methods for the determination of serum markers for bone and cartilage destruction, as well as micro-CT anal., may aid in predicting and evaluating the therapeutic efficacy of IKK $\beta$  inhibition therapy in humans.

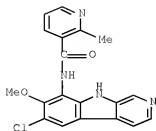
IT 783348-36-7, ML120B

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(IKK $\beta$  inhibition protects against bone and cartilage destruction in rat model of rheumatoid arthritis)

RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS)  
 REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 22 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:1028772 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 146:74798

TITLE: MLN120B, a Novel IKK Kinase  $\beta$  Inhibitor, Blocks Multiple Myeloma Cell Growth In vitro and In vivo

AUTHOR(S): Hideshima, Teru; Neri, Paola; Tassone, Pierfrancesco; Yasui, Hiroshi; Ishitsuka, Kenji; Raje, Noopur; Chauhan, Dharminder; Podar, Klaus; Mitsiades, Constantine; Dang, Lenny; Munshi, Nikhil; Richardson, Paul; Schenkein, David; Anderson, Kenneth C.

CORPORATE SOURCE: Jerome Lipper Multiple Myeloma Center, Dana-Farber Cancer Institute and Harvard Medical School, Boston, MA, USA

SOURCE: Clinical Cancer Research (2006), 12(19), 5887-5894  
 CODEN: CCREF4; ISSN: 1078-0432

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The purpose of this study is to delineate the biol. significance of IKK kinase (IKK) ( $\beta$ ) inhibition in multiple myeloma cells in the context of bone marrow stromal cells (BMSC) using a novel IKK( $\beta$ ) inhibitor MLN120B. Growth-inhibitory effect of MLN120B in multiple myeloma cells in the presence of cytokines [interleukin-6 (IL-6) and insulin-like growth factor-I (IGF-1)], conventional agents (dexamethasone, melphalan, and doxorubicin), or BMSC was assessed in vitro. In vivo anti-multiple myeloma activity of MLN120B was evaluated in severe combined immunodeficient (SCID)-hu model. MLN120B inhibits both baseline and tumor necrosis factor- $\alpha$ -induced nuclear factor- $\kappa$ B activation, associated with down-regulation of IKK $\alpha$  and p65 nuclear factor- $\kappa$ B phosphorylation. MLN120B triggers 25% to 90% growth inhibition in a dose-dependent fashion in multiple myeloma cell lines and significantly augments tumor necrosis factor- $\alpha$ -induced cytotoxicity in MM.1S cells. MLN120B augments growth inhibition triggered by doxorubicin and melphalan in both RPMI 8226 and IL-6-dependent INA6 cell lines. Neither IL-6 nor IGF-1 overcomes the growth-inhibitory effect of MLN120B. MLN120B inhibits constitutive IL-6 secretion by BMSCs by 70% to 80% without affecting viability. Importantly, MLN120B almost completely blocks stimulation of MM.1S, U266, and INA6 cell growth, as well as IL-6 secretion from BMSCs, induced by multiple myeloma cell adherence to BMSCs. MLN120B overcomes the protective effect of BMSCs against conventional (dexamethasone) therapy. Our data show that the novel IKK( $\beta$ ) inhibitor MLN120B induces growth inhibition of multiple myeloma cells in SCID-

hu mouse model. These studies provide the framework for clin. evaluation of MLN120B, alone and in combined therapies, trials of these novel agents to improve patient outcome in multiple myeloma.

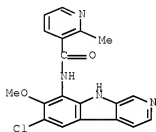
IT 783348-36-7, MLN 120B

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(I $\kappa$ B kinase  $\beta$  inhibitor MLN120B induced growth inhibition of human multiple myeloma cells in severe combined immunodeficient-hu mouse model)

RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 32 THERE ARE 32 CAPLUS RECORDS THAT CITE THIS RECORD (32 CITINGS)

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 23 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:990248 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 147:936

TITLE: Interleukin 6, a nuclear factor- $\kappa$ B target, predicts resistance to docetaxel in hormone-independent orotate cancer and nuclear factor- $\kappa$ B inhibition by PS-1145 enhances docetaxel antitumor activity

AUTHOR(S): Domingo-Domenech, Josep; Oliva, Cristina; Rovira, Ana; Codony-Servat, Jordi; Bosch, Marta; Filella, Xavier; Montagut, Clara; Tapia, Marian; Campas, Clara; Dang, Lenny; Rolfe, Mark; Ross, Jeffrey S.; Gascon, Pere; Albanell, Joan; Mellado, Begona

CORPORATE SOURCE: Department of Medical Oncology and Laboratory of Experimental Oncology, Institut Clinic Malalties Hemato-Oncologiques, University of Barcelona, Barcelona, Spain

SOURCE: Clinical Cancer Research (2006), 12(18), 5578-5586  
CODEN: CCREF4; ISSN: 1078-0432

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB To investigate whether nuclear factor  $\kappa$ B (NF- $\kappa$ B)/interleukin 6 (IL-6) was linked to docetaxel response in human prostate cancer cell lines, and whether inhibition of NF- $\kappa$ B sensitized tumor cells to docetaxel. We also aimed to correlate IL-6 (as a surrogate marker of NF- $\kappa$ B) and docetaxel response in

hormone-independent prostate cancer (HIPC) patients. Hormone-dependent (LNCaP) and hormone-independent (PC-3 and DU-145) prostate cancer cell lines were exposed to docetaxel alone or combined with the NF- $\kappa$ B inhibitor PS-1145 (an inhibitor of I $\kappa$ B kinase-2). Effects of dose, exposure time, and schedule dependence were assessed. Activation of NF- $\kappa$ B was assayed by electrophoresis mobility shift assay and luciferase reporter assay, IL-6 levels by ELISA, and cell viability by 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide assay. Cell cycle and apoptosis were assessed by fluorescence-activated cell sorting anal. Apoptosis was also measured by detection of cleavage of poly(ADP-ribose) polymerase. In patients with metastatic HIPC receiving docetaxel-based chemotherapy, IL-6 serum levels were assayed before chemotherapy and every 3 to 4 wk thereafter. PC-3 and DU-145 cells had higher NF- $\kappa$ B activity, secreted more IL-6, and were more resistant to docetaxel than LNCaP cells. NF- $\kappa$ B activity was induced by docetaxel. Cotreatment with docetaxel and PS-1145 prevented docetaxel-induced NF- $\kappa$ B activation, reduced IL-6 production, and increased docetaxel effects on cell viability in PC-3 and DU-145 cells but not in LNCaP. Synergism with docetaxel and PS-1145, as assayed by median-effect principle, was observed in DU-145 and PC-3. In HIPC patients, pretreatment IL-6 serum levels correlated to prostate-specific antigen (PSA) response: median IL-6 level was  $10.8 \pm 9.5$  pg/mL in PSA responders vs.  $36.7 \pm 20.8$  pg/mL ( $P = 0.006$ ) in nonresponders. A PSA response was also linked to a decline in IL-6 levels during treatment. Median overall survival was 6.8 mo in patients with high IL-6 vs. 16.6 mo in those with low IL-6 ( $P = 0.0007$ ). On multivariate anal., pretreatment IL-6 ( $P = 0.05$ ) was an independent prognostic factor for time to disease progression and survival. Inhibition of NF- $\kappa$ B emerges as an attractive strategy to enhance docetaxel response in prostate cancer. The interest of this view is further supported by a significant association between high IL-6 in sera of HIPC patients and decreased response to docetaxel.

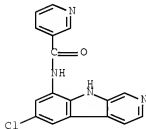
IT 431898-65-6, PS-1145

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nuclear factor- $\kappa$ B inhibition enhanced docetaxel antitumor activity in hormone-independent prostate cancer cell line while high interleukin 6 predicted resistance to docetaxel and survival in hormone-independent prostate cancer patient)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 24 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:968421 CAPLUS Full-text

DOCUMENT NUMBER: 146:6282

TITLE: Nuclear factor- $\kappa$ B maintains TRAIL resistance in human pancreatic cancer cells

AUTHOR(S): Khanbolooki, Sanaz; Nawrocki, Steffan T.; Arumugam, Thiruvengadam; Andtbacka, Robert; Pino, Maria S.; Kurzrock, Razelle; Logsdon, Craig D.; Abbuzzese, James L.; McConkey, David J.

CORPORATE SOURCE: M. D. Anderson Cancer Center, Departments of Cancer Biology and Gastrointestinal Medical Oncology, University of Texas M.D. Anderson Cancer Center, Houston, Texas and Division of Medical Oncology, University of Texas, Houston, TX, USA

SOURCE: Molecular Cancer Therapeutics (2006), 5(9), 2251-2260  
CODEN: MCTOCF; ISSN: 1535-7163

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Although it displays promising activity in other tumor models, the effects of tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) on human pancreatic cancer cells have not been comprehensively explored. We report that a majority of human pancreatic cancer cell lines (seven of nine) underwent apoptosis when they were exposed to recombinant human TRAIL in vitro. Characterization of surface TRAIL receptors by fluorescence-activated cell sorting showed that TRAIL-resistant cells (Panc-1 and HS766T) expressed lower levels of DR4 and DR5 than did TRAIL-sensitive cells. The proteasome inhibitor bortezomib (PS-341, Velcade) further increased TRAIL responsiveness in the TRAIL-sensitive cells and synergized with TRAIL to reverse resistance in Panc-1 and HS776T cells. The effects of bortezomib were mimicked by transfection with a small interfering RNA construct specific for the p65 subunit of nuclear factor- $\kappa$ B (NF- $\kappa$ B) or exposure to a selective chemical inhibitor of IKK (PS-1145). Silencing IkB $\alpha$  prevented TRAIL sensitization by PS-1145, confirming that IkB $\alpha$  mediated the effects of PS-1145. NF- $\kappa$ B inhibition resulted in down-regulation of BCL-XL and XIAP, and silencing either restored TRAIL sensitivity in TRAIL-resistant cells. Finally, therapy with TRAIL plus PS-1145 reversed TRAIL resistance in vivo to produce synergistic growth inhibition in orthotopic Panc-1 tumors. Together, our results show that NF- $\kappa$ B inhibits TRAIL-induced apoptosis in human pancreatic cancer cells and suggest that combination therapy with TRAIL and NF- $\kappa$ B inhibitors, such as bortezomib, PS-1145, or curcumin, should be considered as a possible treatment strategy in patients with pancreatic cancer.

IT 431898-65-6, PS-1145

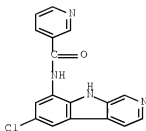
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(NF- $\kappa$ B maintains TRAIL resistance in human pancreatic cancer cells)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)





OS.CITING REF COUNT: 34 THERE ARE 34 CAPLUS RECORDS THAT CITE THIS RECORD (34 CITINGS)  
 REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 25 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:960790 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 147:235039

TITLE: Synthesis of C-14 and C-13, H-2-labeled IKK inhibitor: [14C] and [13C4,D3]-N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl-3-pyridinecarboxamide

AUTHOR(S): Li, Yuexian; Plesescu, Mihaela; Prakash, Shimoga R.

CORPORATE SOURCE: Department of Drug Metabolism and Pharmacokinetics,

Radiochemistry Group, Millennium Pharmaceuticals,

Cambridge, MA, 02139, USA

SOURCE: Journal of Labelled Compounds and Radiopharmaceuticals (2006), 49(9), 789-799

CODEN: JLCRD4; ISSN: 0362-4803

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 147:235039

AB [14C]-N-(6-Chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl-3-pyridinecarboxamide, an IKK inhibitor [i.e., kinase (phosphorylating) IkB protein] was synthesized from [14C]-barium carbonate in two steps in an overall radiochem. yield of 41%. The intermediate, [carboxy-14C]-2-methylnicotinic acid [i.e., 2-methyl-3-pyridinecarboxylic-14C acid] was prepared by lithiation and carboxylation of 3-bromo-2-methylpyridine. [13C4,D3]-N-(6-chloro-7-methoxy-9H-pyrido [3,4-b]indol-8-yl)-2-methyl-3-pyridinecarboxamide was synthesized from Et [1,2,3,4-13C4]acetoacetate and [D4]-methanol in six steps in an overall yield of 2%. [13C4]-2-methylnicotinic acid, was prepared by condensation of Et [13C4]-3-aminocrotonate and acrolein, followed by hydrolysis with lithium hydroxide.

IT 783348-36-7P, ML 120B 945482-99-5P

945483-05-6P

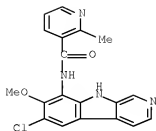
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation 14C-labeled, 13C-labeled and 2H-labeled

N-[chloro(methoxy)pyrido[3,4-b]indolyl] (methyl)pyridinecarboxamide derivs.)

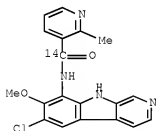
RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



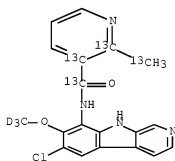
RN 945482-99-5 CAPLUS

CN 3-Pyridinecarboxamide-14C, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



RN 945483-05-6 CAPLUS

CN 3-Pyridine-2,3-13C2-carboxamide-13C, N-[6-chloro-7-(methoxy-d3)-9H-pyrido[3,4-b]indol-8-yl]-2-(methyl-13C)- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

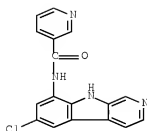
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2006:778034 CAPLUS Full-text  
 DOCUMENT NUMBER: 145:241370  
 TITLE: Validation of the anti-inflammatory properties of  
 small-molecule I $\kappa$ B kinase (IKK)-2 inhibitors by  
 comparison with adenoviral-mediated delivery of  
 dominant-negative IKK1 and IKK2 in human airways  
 smooth muscle  
 AUTHOR(S): Catley, Matthew C.; Sukkar, Maria B.; Chung, K. Fan;  
 Jaffee, Bruce; Liao, Sha-Mei; Coyle, Anthony J.;  
 Haddad, El-Bdaoui; Barnes, Peter J.; Newton, Robert  
 CORPORATE SOURCE: National Heart & Lung Institute, Imperial College  
 London, London, UK  
 SOURCE: Molecular Pharmacology (2006), 70(2), 697-705  
 CODEN: MOPMA3; ISSN: 0026-895X  
 PUBLISHER: American Society for Pharmacology and Experimental  
 Therapeutics  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

**AB** Asthma and chronic obstructive pulmonary disease (COPD) are characterized by chronic airway inflammation. However, because patients with COPD and certain patients with asthma show little or no therapeutic benefit from existing corticosteroid therapies, there is an urgent need for novel anti-inflammatory strategies. The transcription factor nuclear factor- $\kappa$ B (NF- $\kappa$ B) is central to inflammation and is necessary for the expression of numerous inflammatory genes. Proinflammatory cytokines, including interleukin (IL)-1 $\beta$  and tumor necrosis factor (TNF)- $\alpha$ , activate the I $\kappa$ B kinase complex (IKK) to promote the degradation of inhibitory I $\kappa$ B proteins and activate NF- $\kappa$ B. This pathway and, in particular, the main I $\kappa$ B kinase, IKK2, are now considered prime targets for novel anti-inflammatory drugs. Therefore, we have used adenoviral overexpression to demonstrate NF- $\kappa$ B and IKK2 dependence of key inflammatory genes, including intercellular adhesion mol. (ICAM)-1, cyclooxygenase-2, IL-6, IL-8, granulocyte macrophage-colony-stimulating factor (GM-CSF), regulated on activation normal T cell expressed and secreted (RANTES), monocyte chemotactic protein-1 (MCP-1), growth-regulated oncogene- $\alpha$  (GRO $\alpha$ ), neutrophil-activating protein-2 (NAP-2), and epithelial neutrophil activating peptide 78 (ENA-78) in primary human airways smooth muscle cells. Because this cell type is central to the pathogenesis of airway inflammatory diseases, these data predict a beneficial effect of IKK2 inhibition. These validated outputs were therefore used to evaluate the novel IKK inhibitors N-(6-chloro-9H- $\beta$ -carbolin-8-yl) nicotinamide (PS-1145) and N-(6-chloro-7-methoxy-9H- $\beta$ -carbolin-8-yl)-2-methyl-nicotinamide (ML120B) on IL-1 $\beta$  and TNF $\alpha$ -induced expression, and this was compared with the corticosteroid dexamethasone. As observed above, ICAM-1, IL-6, IL-8, GM-CSF, RANTES, MCP-1, GRO $\alpha$ , NAP-2, and ENA-78 expression was reduced by the IKK inhibitors. Furthermore, this inhibition was either as effective, or for ICAM-1, MCP-1, GRO $\alpha$ , and NAP-2, more effective, than a maximally effective concentration of dexamethasone. We therefore suggest that IKK inhibitors may be of considerable benefit in inflammatory airways diseases, particularly in COPD or severe asthma, in which corticosteroids are ineffective.

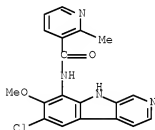
**IT** 431898-65-6, PS-1145 782348-36-7, ML120B  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)

(validation of anti-inflammatory properties of small-mol. I $\kappa$ B  
 kinase (IKK)-2 inhibitors by comparison with adenoviral-mediated  
 delivery of dominant-neg. IKK1 and IKK2 in human airways smooth muscle)  
**RN** 431898-65-6 CAPLUS  
**CN** 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX  
 NAME)



RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 25 THERE ARE 25 CAPLUS RECORDS THAT CITE THIS RECORD (25 CITINGS)

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 27 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:524316 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 145:116993

TITLE: Rapid TNFR1-dependent lymphocyte depletion in vivo with a selective chemical inhibitor of IKK $\beta$

AUTHOR(S): Nagashima, Kumiko; Sasseville, Vito G.; Wen, Danyi; Bielecki, Andrew; Yang, Hua; Simpson, Chris; Grant, Ethan; Hepperle, Michael; Harriman, Gerry; Jaffee, Bruce; Ocain, Tim; Xu, Yajun; Fraser, Christopher C.

CORPORATE SOURCE: Millennium Pharmaceuticals, Cambridge, MA, USA

SOURCE: Blood (2006), 107(11), 4266-4273

CODEN: BLOOAW; ISSN: 0006-4971

PUBLISHER: American Society of Hematology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The transcription factor NF- $\kappa$ B plays a central role in regulating inflammation and apoptosis, making it a compelling target for drug development. We identified a small mol. inhibitor (ML 120B) that specifically inhibits IKK $\beta$ , an Ik-B kinase that regulates NF- $\kappa$ B. IKK $\beta$  and NF- $\kappa$ B are required in vivo for prevention of TNF $\alpha$ -mediated apoptosis. ML 120B sensitized mouse bone marrow

progenitors and granulocytes, but not mature B cells to TNF $\alpha$  killing in vitro, and induced apoptosis in vivo in the bone marrow and spleen within 6 h of a single oral dose. In vivo inhibition of IKK $\beta$  with ML 120B resulted in depletion of thymocytes and B cells in all stages of development in the bone marrow but did not deplete granulocytes. TNF receptor-deficient mouse thymocytes and B cells were resistant to ML 120B-induced depletion in vivo. Surprisingly, surviving bone marrow granulocytes expressed TNFR1 and TNFR2 after dosing in vivo with ML 120B. Our results show that inhibition of IKK $\beta$  with a small mol. in vivo leads to rapid TNF-dependent depletion of T and B cells. This observation has several implications for potential use of IKK $\beta$  inhibitors for the treatment of inflammatory disease and cancer.

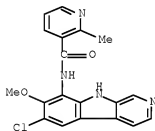
IT 783348-36-7, ML 120B

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); BIOL (Biological study)

(ML 120B-induced IKK $\beta$  inhibition rapid TNFR1-dependent depletion of T- and B-cells in mice in relation to treatment of inflammatory disease and cancer)

RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 24 THERE ARE 24 CAPLUS RECORDS THAT CITE THIS RECORD (24 CITINGS)

REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 28 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:523948 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 145:159386

TITLE: A selective small molecule I $\kappa$ B kinase  $\beta$  inhibitor blocks nuclear factor  $\kappa$ B-mediated inflammatory responses in human fibroblast-like synoviocytes, chondrocytes, and mast cells

AUTHOR(S): Wen, Danyi; Nong, Yuhua; Morgan, Jennifer G.; Gangurde, Pranoti; Bielecki, Andrew; DaSilva, Jennifer; Keaveney, Marie; Cheng, Hong; Fraser, Chris; Schopf, Lisa; Hepperle, Michael; Harriman, Geraldine; Jaffee, Bruce D.; Ocain, Timothy D.; Xu, Yajun

CORPORATE SOURCE: Departments of Inflammation and Discovery Technologies, Millennium Pharmaceuticals, Inc., Cambridge, MA, USA

SOURCE: Journal of Pharmacology and Experimental Therapeutics (2006), 317(3), 989-1001  
CODEN: JPETAB; ISSN: 0022-3565

PUBLISHER: American Society for Pharmacology and Experimental  
Therapeutics  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB IκB kinase (IKK) β is essential for inflammatory cytokine-induced activation of nuclear factor κB (NF-κB). NF-κB plays a pivotal role in the function of major cell types that contribute to the pathophysiol. process of rheumatoid arthritis (RA). Here, we report the mechanism and the effect of the IKKβ inhibitor N-(6-chloro-7-methoxy-9H-β-carbolin-8-yl)-2-methylnicotinamide (ML120B), a β-carboline derivative, on NF-κB signaling and gene activation in RA-relevant cell systems. ML120B is a potent, selective, reversible, and ATP-competitive inhibitor of IKKβ with an IC50 of 60 nM when evaluated in an IκBα kinase complex assay. ML120B does not inhibit other IKK isoforms or a panel of other kinases. ML120B concentration-dependently inhibits tumor necrosis factor α (TNFα)-stimulated NF-κB signaling via inhibition of IκBα phosphorylation, degradation, and NF-κB translocation into the nucleus. For the first time, we have demonstrated that in human fibroblast-like synoviocytes, TNFα- or interleukin (IL)-1β-induced monocyte chemoattractant protein-1 regulated on activation, normal T cell expressed and secreted and production is IKKβ-dependent. In addition, for the first time, we have demonstrated that lipopolysaccharide- or peptidoglycan-induced cytokine production in human cord blood-derived mast cells is IKKβ-dependent. In addition, in human chondrocytes, ML120B inhibited IL-1β-induced matrix metalloproteinase production with an IC50 of approx. 1 μM. ML120B also blocked IL-1β-induced prostaglandin E2 production. In summary, ML120B blocked numerous NF-κB-regulated cell responses that are involved in inflammation and destructive processes in the RA joint. Our findings support the evaluation of IKKβ inhibitors as anti-inflammatory agents for the treatment of RA.

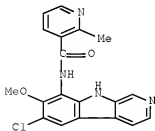
IT 783348-36-7, ML 120B

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(selective IKKβ inhibitor blocks NFκB-mediated inflammatory responses in human fibroblast-like synoviocytes, chondrocytes, and mast cells)

RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 31 THERE ARE 31 CAPLUS RECORDS THAT CITE THIS  
RECORD (31 CITINGS)  
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 29 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:394205 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 145:327824

TITLE: The NF- $\kappa$ B pathway blockade by the IKK inhibitor PS1145 can overcome Imatinib resistance

AUTHOR(S): Cillonì, D.; Messa, F.; Arruga, F.; Defilippi, I.; Morotti, A.; Messa, E.; Carturan, S.; Giugliano, E.; Pautasso, M.; Bracco, E.; Rosso, V.; Sen, A.; Martinelli, G.; Baccarani, M.; Saglio, G.

CORPORATE SOURCE: Division of Hematology and Internal Medicine, Department of Clinical and Biological Sciences, University of Turin, Turin, Italy

SOURCE: Leukemia (2006), 20(1), 61-67

CODEN: LEUKED; ISSN: 0887-6924

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Imatinib represents at present the most attractive therapy for BCR-ABL pos. leukemias, even though a percentage of CML patients develop resistance to this compound. For these resistant patients a therapeutic approach based on a combination of drugs is more likely to be effective. In the last years, constitutive NF- $\kappa$ B/Rel activity has been demonstrated in several hematol. malignancies. As a result, NF $\kappa$ B/Rel-blocking approaches have been proposed as antineoplastic strategies. Furthermore, the identification of specific kinases within the NF- $\kappa$ B activation pathway offers a selective target to address tailored therapies. In the current study, we show that the IKK inhibitor PS1145 is able to inhibit the proliferation of CML cell lines and primary BM cells. Moreover, the addition of Imatinib increases the effects of PS1145 in resistant cell lines and BM cells from resistant patients, with a further increase of apoptosis and inhibition of proliferation and colony growth. Our data provide the rationale for a new therapeutic approach, which combines Imatinib and the IKK inhibitor PS1145 in CML resistant patients.

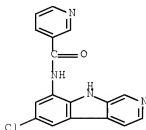
IT 431898-65-6, PS1145

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(addition of Imatinib increased effects of IKK inhibitor PS1145 with further increase of apoptosis, inhibition of proliferation and colony growth in resistant CML cell lines and BM cells from resistant CML patient)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 25 THERE ARE 25 CAPLUS RECORDS THAT CITE THIS RECORD (25 CITINGS)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 30 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:66400 CAPLUS Full-text

DOCUMENT NUMBER: 144:121286

TITLE: NF- $\kappa$ B as a target for the prevention of graft-versus-host disease: Comparative efficacy of bortezomib and PS-1145

AUTHOR(S): Vodanovic-Jankovic, Sanja; Hari, Parameswaran; Jacobs, Paulette; Komorowski, Richard; Drobyski, William R.  
CORPORATE SOURCE: Bone Marrow Transplant Program and the Departments of Medicine and Pathology, Medical College of Wisconsin, Milwaukee, WI, USA

SOURCE: Blood (2006), 107(2), 827-834  
CODEN: BLOOAW; ISSN: 0006-4971

PUBLISHER: American Society of Hematology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB NF- $\kappa$ B is a transcription factor that controls the expression of a number of genes important for mediating immune and inflammatory responses. In this study, we examined whether bortezomib and PS-1145, each of which inhibits NF- $\kappa$ B, could protect mice from lethal graft-vs.-host disease (GVHD), which is characterized by immune activation and proinflammatory cytokine production. When administered within the first 2 days after transplantation, bortezomib and PS-1145 both protected mice from fatal GVHD, did not compromise donor engraftment, and effected marked reduction in the levels of serum cytokines that are normally increased during GVHD. Extending the course of bortezomib administration or delaying the initiation of this agent for as few as 3 days after bone marrow transplantation (BMT), however, significantly exacerbated GVHD-dependent mortality because of severe pathol. damage in the colon. In contrast, prolonged administration of PS-1145, which, unlike bortezomib, is a selective inhibitor of NF- $\kappa$ B, caused no early toxicity and resulted in more complete protection than that observed with an abbreviated PS-1145 treatment schedule. These results confirm a critical role for NF- $\kappa$ B in the pathophysiol. of GVHD and indicate that targeted inhibition of NF- $\kappa$ B may have a superior therapeutic index and may constitute a viable therapeutic approach to reduce GVHD severity.

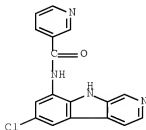
IT 431898-65-6, PS-1145

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(NF- $\kappa$ B as a target for the prevention of graft-vs.-host disease: comparative efficacy of bortezomib and PS-1145)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)





OS.CITING REF COUNT: 26 THERE ARE 26 CAPLUS RECORDS THAT CITE THIS  
RECORD (26 CITINGS)  
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 31 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:52335 CAPLUS Full-text

DOCUMENT NUMBER: 144:403881

TITLE: Effects of IKK inhibitor PS1145 on NF- $\kappa$ B  
function, proliferation, apoptosis and invasion  
activity in prostate carcinoma cells

AUTHOR(S): Yemelyanov, A.; Gasparian, A.; Lindholm, P.; Dang, L.;  
Pierce, J. W.; Kisseljov, F.; Karseladze, A.;  
Budunova, I.

CORPORATE SOURCE: Feinberg School of Medicine, Northwestern University,  
Chicago, IL, USA

SOURCE: Oncogene (2006), 25(3), 387-398

CODEN: ONCNES; ISSN: 0950-9232

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A key antiapoptotic transcription factor, nuclear factor kappa-B (NF- $\kappa$ B), is known to be critically important for tumor cell growth, angiogenesis and development of metastatic lesions. We and others showed previously that NF- $\kappa$ B transcription factor was constitutively activated in androgen-independent prostate carcinoma (PC) cell lines due to the upregulated activity of inhibitor of NF- $\kappa$ B kinases (IKK). In this work, using luciferase assay, electrophoretic mobility shift assay and Northern blot anal. of expression of endogenous  $\kappa$ B-responsive genes, we demonstrate that a novel highly specific small-mol. IKK inhibitor, PS1145, efficiently inhibited both basal and induced NF- $\kappa$ B activity in PC cells. We found that PS1145 induced caspase 3/7-dependent apoptosis in PC cells and significantly sensitized PC cells to apoptosis induced by tumor necrosis factor alpha. We also showed that PS1145 inhibited PC cell proliferation. Effects of PS1145 on proliferation and apoptosis correlated with inhibition of interleukin (IL)-6, cyclin D1, D2, inhibitor of apoptosis (IAP)-1 and IAP-2 gene expression and decreased IL-6 protein level. In addition, we found that incubation with PS1145 inhibited the invasion activity of highly invasive PC3-S cells in invasion chamber assay in a dose-dependent manner. Overall, this study provides the framework for development of a novel therapeutic approach targeting NF- $\kappa$ B transcription factor to treat advanced PC.

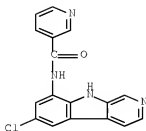
IT 431898-65-6, PS1145

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(effects of IKK inhibitor PS1145 on NF- $\kappa$ B function, proliferation, apoptosis and invasion activity in prostate carcinoma cells)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 30 THERE ARE 30 CAPLUS RECORDS THAT CITE THIS  
RECORD (30 CITINGS)  
REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 32 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:1155525 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 143:422250

TITLE: Preparation of substituted  $\beta$ -carboline I $\kappa$ B  
kinase 2 (IKK-2) inhibitors as potential  
antiinflammatory, immunomodulatory, or anticancer  
agents

INVENTOR(S): Hepperle, Michael E.; Liu, Julie Fields; Soucy,  
Francois; Raman, Prakash; Little, Jeremy D.; Fleming,  
Paul E.; Reynolds, Dominic; Harriman, Geraldine C. B.

PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 143 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050239781	A1	20051027	US 2005-101998	20050408
AU 2005243188	A1	20051124	AU 2005-243188	20050408
CA 2561859	A1	20051124	CA 2005-2561859	20050408
WO 2005111037	A1	20051124	WO 2005-US13812	20050408
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1735311	A1	20061227	EP 2005-779267	20050408
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CN 1976931	A	20070606	CN 2005-80019014	20050408

BR 2005009660	A	20071009	BR 2005-9660	20050408
JP 2007532582	T	20071115	JP 2007-507578	20050408
SG 154458	A1	20090828	SG 2009-4592	20050408
MX 2006011545	A	20070326	MX 2006-11545	20061005
IN 2006DN05815	A	20070831	IN 2006-DN5815	20061006
NO 2006004894	A	20070103	NO 2006-4894	20061026
ZA 2006008956	A	20080625	ZA 2006-8956	20061027
KR 2007014166	A	20070131	KR 2006-723401	20061108
PRIORITY APPLN. INFO.:			US 2004-560892P	P 20040409
			WO 2005-US13812	W 20050408

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 143:422250

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Substituted  $\beta$ -carbolines I [Q = CH<sub>2</sub>, CH-R<sub>9</sub>; G = NR<sub>4</sub>R<sub>5</sub>, 3-7 membered (un)substituted heterocyclyl; R<sub>1</sub> = H, halo, alkyl, amino, alkylamino; R<sub>2</sub>, R<sub>3</sub> = independently H, halo, C1-2 aliphatic, alkoxy, haloalkyl; R<sub>4</sub>, each R = independently H, C1-6 aliphatic; R<sub>5</sub> = (un)substituted C1-6 aliphatic; R<sub>9</sub> = C1-3 aliphatic; and their pharmaceutically acceptable salts] were prepared as inhibitors of I $\kappa$ B kinase 2 (IKK-2) for the treatment of inflammatory or immune system diseases such as rheumatoid arthritis, asthma, psoriasis, chronic obstructive pulmonary disease, or cancer (particularly lymphoma). E.g., coupling of (S)-4-((S)-2-tert-butoxycarbonylamino)propyl)-6,6-dimethylmorpholine-3-carboxylic acid with 6-chloro-4-methyl-9H- $\beta$ -carbolin-8-ylamine, Boc-deprotection, and acylation of amine salt with 2-methylnicotinic acid. Selected  $\beta$ -carbolines I displayed IC<sub>50</sub> < 100 nM for inhibition of I $\kappa$ B kinase in in vitro and cell-based assays. I were selective for inhibiting IKK-2 as opposed to IKK-1.

IT	763349-59-7P	763349-60-0P	763349-69-9P
	763349-70-2P	763349-79-1P	763349-81-5P
	763349-82-6P	763349-83-7P	763349-84-8P
	763349-90-6P	763350-36-9P	

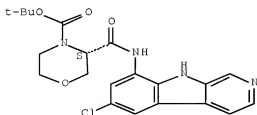
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of substituted  $\beta$ -carboline I $\kappa$ B kinase 2 (IKK-2) inhibitors as potential antiinflammatory, immunomodulatory, or anticancer agents)

RN 763349-59-7 CAPLUS

CN 4-Morpholinecarboxylic acid, 3-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-, 1,1-dimethylethyl ester, (3S)- (CA INDEX NAME)

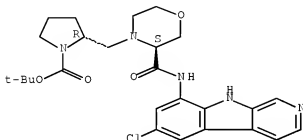
Absolute stereochemistry.



RN 783349-60-0 CAPLUS

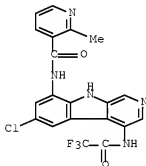
CN 1-Pyrrolidinecarboxylic acid, 2-[[[(3S)-3-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-4-morpholinyl]methyl]-, 1,1-dimethylethyl ester, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



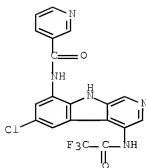
RN 783349-69-9 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-4-[(2,2,2-trifluoroacetyl)amino]-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



RN 783349-70-2 CAPLUS

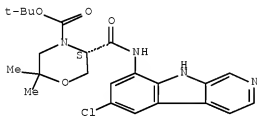
CN 3-Pyridinecarboxamide, N-[6-chloro-4-[(2,2,2-trifluoroacetyl)amino]-9H-pyrido[3,4-b]indol-8-yl]- (CA INDEX NAME)



RN 783349-79-1 CAPLUS

CN 4-Morpholinecarboxylic acid, 5-[[ (6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-, 1,1-dimethylethyl ester, (5S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 783349-81-5 CAPLUS

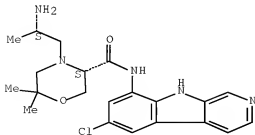
CN 3-Morpholinecarboxamide, 4-[(2S)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 783349-80-4

CMF C21 H26 Cl N5 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1

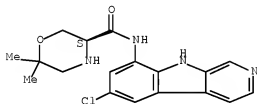
CMF C2 H F3 O2



RN 783349-82-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

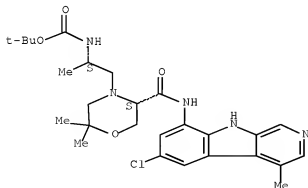


● HCl

RN 783349-83-7 CAPLUS

CN Carbamic acid, [(1S)-2-[(5S)-5-[[[(6-chloro-4-methyl-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]-1-methylethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

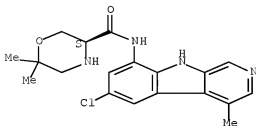
Absolute stereochemistry.



RN 783349-84-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-4-methyl-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

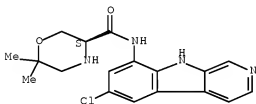


● HCl

RN 783349-90-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

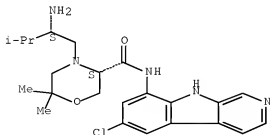
Absolute stereochemistry.



RN 783350-38-9 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-amino-3-methylbutyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



IT 794501-53-4P 668058-28-6P 668058-29-1P  
 668058-30-4P 668058-31-5P 668058-32-6P  
 668058-33-7P 668058-34-8P 668058-35-9P  
 668058-36-0P 668058-37-1P 668058-38-2P  
 668058-39-3P 668058-40-6P 668058-41-7P  
 668058-42-8P 668058-43-9P 668058-44-0P  
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 668140-14-1P 668140-17-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)

(invention compound; preparation of substituted -carboline IB kinase 2 (IKK-

2)

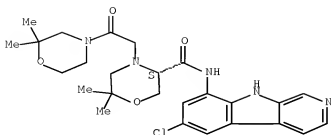
inhibitors as potential antiinflammatory, immunomodulatory, or  
 anticancer agents)

RN 794501-53-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(2,2-  
 dimethyl-4-morpholinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

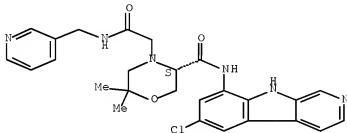




RN 868058-28-0 CAPLUS

CN 4-Morpholineacetamide, 5-[[ (6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-N-(3-pyridinylmethyl)-, (5S)- (CA INDEX NAME)

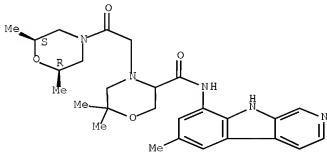
Absolute stereochemistry.



RN 868058-29-1 CAPLUS

CN 3-Morpholinecarboxamide, 4-[2-[(2R,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-N-(6-methyl-9H-pyrido[3,4-b]indol-8-yl)-, rel- (CA INDEX NAME)

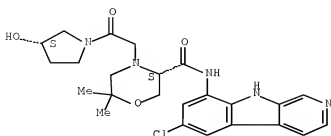
Relative stereochemistry.



RN 868058-30-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(3S)-3-hydroxy-1-pyrrolidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

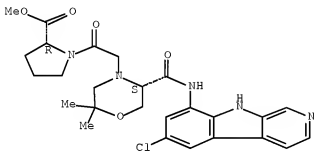
Absolute stereochemistry.



RN 868058-31-5 CAPLUS

CN D-Proline, 1-[[ (5S)-5-[[ (6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]-, methyl ester (9CI)  
(CA INDEX NAME)

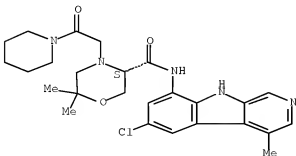
Absolute stereochemistry.



RN 868058-32-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-4-methyl-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(1-piperidinyl)ethyl]-, (3S)- (CA INDEX NAME)

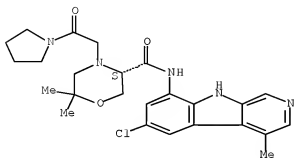
Absolute stereochemistry.



RN 868058-33-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-4-methyl-9H-pyrido[3,4-b]indol-8-yl)-  
6,6-dimethyl-4-[2-oxo-2-(1-pyrrolidinyl)ethyl]-, (3S)- (CA INDEX NAME)

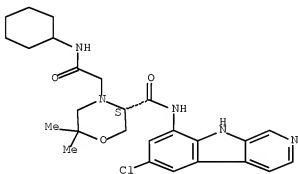
Absolute stereochemistry.



RN 868058-34-8 CAPLUS

CN 4-Morpholineacetamide, 5-[[6-chloro-9H-pyrido[3,4-b]indol-8-  
yl)amino]carbonyl]-N-cyclohexyl-2,2-dimethyl-, (5S)- (CA INDEX NAME)

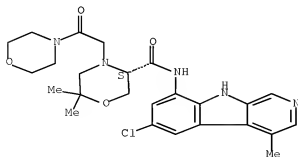
Absolute stereochemistry.



RN 868058-35-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-4-methyl-9H-pyrido[3,4-b]indol-8-yl)-  
6,6-dimethyl-4-[2-(4-morpholinyl)-2-oxoethyl]-, (3S)- (CA INDEX NAME)

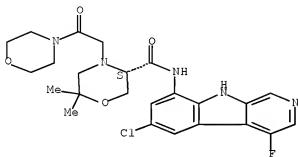
Absolute stereochemistry.



RN 868058-36-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-4-fluoro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-(4-morpholinyl)-2-oxoethyl]-, (3S)- (CA INDEX NAME)

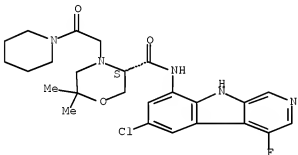
Absolute stereochemistry.



RN 868058-37-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-4-fluoro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(1-piperidinyl)ethyl]-, (3S)- (CA INDEX NAME)

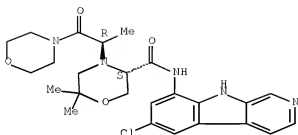
Absolute stereochemistry.



RN 868058-38-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1R)-1-methyl-2-(4-morpholinyl)-2-oxoethyl]-, (3S)- (CA INDEX NAME)

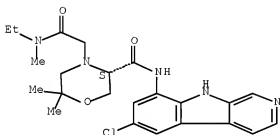
Absolute stereochemistry.



RN 868058-39-3 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-N-ethyl-N,2,2-trimethyl-, (5S)- (CA INDEX NAME)

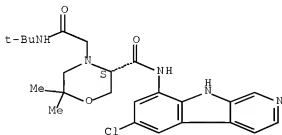
Absolute stereochemistry.



RN 868058-40-6 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-N-(1,1-dimethylethyl)-2,2-dimethyl-, (5S)- (CA INDEX NAME)

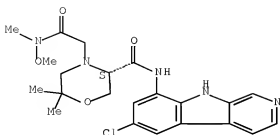
Absolute stereochemistry.



RN 868058-41-7 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-N-methoxy-N,2,2-trimethyl-, (5S)- (CA INDEX NAME)

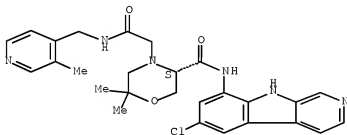
Absolute stereochemistry.



RN 868058-42-8 CAPLUS

CN 4-Morpholineacetamide, 5-[[ (6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-N-[(3-methyl-4-pyridinyl)methyl]-, (5S)- (CA INDEX NAME)

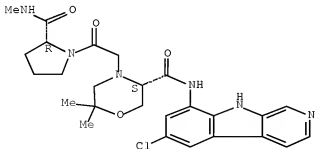
Absolute stereochemistry.



RN 868058-43-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-[(2R)-2-[(methylamino)carbonyl]-1-pyrrolidinyl]-2-oxoethyl]-, (3S)-(9CI) (CA INDEX NAME)

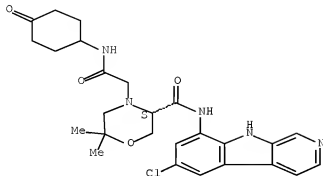
Absolute stereochemistry.



RN 868058-44-0 CAPLUS

CN 4-Morpholineacetamide, 5-[[ (6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-N-(4-oxocyclohexyl)-, (5S)- (CA INDEX NAME)

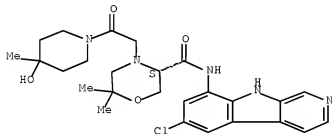
Absolute stereochemistry.



RN 868058-45-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(4-hydroxy-4-methyl-1-piperidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

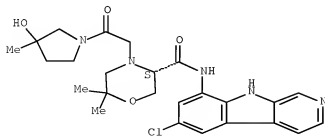
Absolute stereochemistry.



RN 868058-46-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(3-hydroxy-3-methyl-1-pyrrolidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

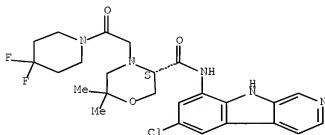
Absolute stereochemistry.



RN 868058-47-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(4,4-difluoro-1-piperidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

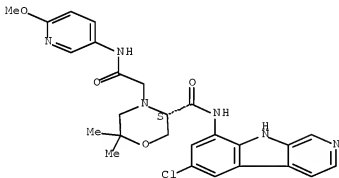
Absolute stereochemistry.



RN 868058-48-4 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N-(6-methoxy-3-pyridinyl)-2,2-dimethyl-, (5S)- (CA INDEX NAME)

Absolute stereochemistry.

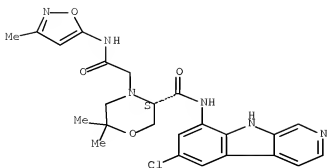


RN 868058-49-5 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-N-(3-methyl-5-isoxazolyl)-, (5S)- (CA INDEX NAME)

Absolute stereochemistry.

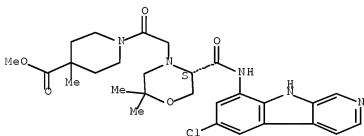




RN 868058-50-8 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-[2-[(5S)-5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]-4-methyl-, methyl ester (CA INDEX NAME)

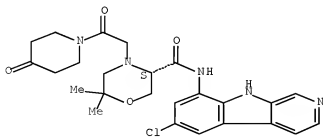
Absolute stereochemistry.



RN 868058-51-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(4-oxo-1-piperidinyl)ethyl]-, (3S)- (CA INDEX NAME)

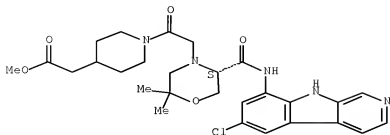
Absolute stereochemistry.



RN 868058-52-0 CAPLUS

CN 4-Piperidineacetic acid, 1-[2-[(5S)-5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]-, methyl ester (CA INDEX NAME)

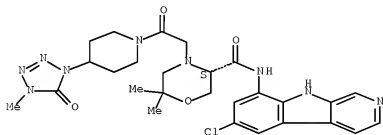
Absolute stereochemistry.



RN 868058-53-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[4-(4,5-dihydro-4-methyl-5-oxo-1H-tetrazol-1-yl)-1-piperidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

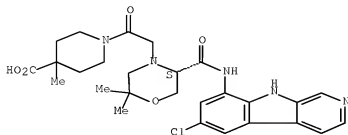
Absolute stereochemistry.



RN 868058-54-2 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-[2-[(5S)-5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]-4-methyl-, (CA INDEX NAME)

Absolute stereochemistry.

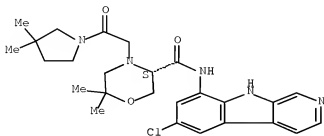


RN 868058-55-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(3,3-

dimethyl-1-pyrrolidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

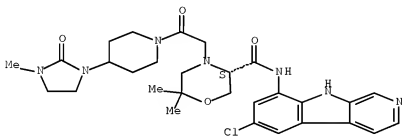
Absolute stereochemistry.



RN 868058-56-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-[(3-methyl-2-oxo-1-imidazolidinyl)-1-piperidinyl]-2-oxoethyl]-, (3S)- (CA INDEX NAME)

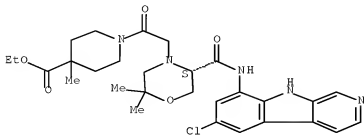
Absolute stereochemistry.



RN 868058-57-5 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-[2-[(5S)-5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]-4-methyl-, ethyl ester (CA INDEX NAME)

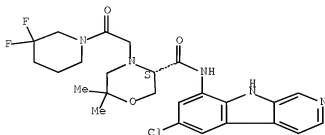
Absolute stereochemistry.



RN 868058-58-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(3,3-difluoro-1-piperidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

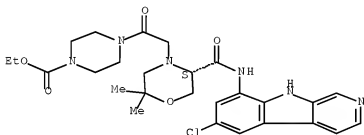
Absolute stereochemistry.



RN 868058-59-7 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[2-[(5S)-5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]-, ethyl ester (CA INDEX NAME)

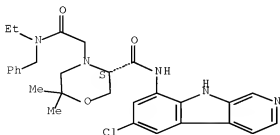
Absolute stereochemistry.



RN 868058-60-0 CAPLUS

CN 4-Morpholinecarboxamide, 5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N-ethyl-2,2-dimethyl-N-(phenylmethyl)-, (5S)- (CA INDEX NAME)

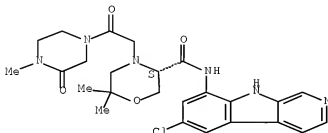
Absolute stereochemistry.



RN 868058-61-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-(4-methyl-3-oxo-1-piperazinyl)-2-oxoethyl]-, (3S)- (CA INDEX NAME)

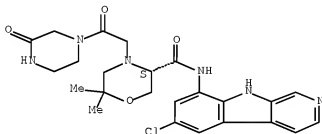
Absolute stereochemistry.



RN 868058-62-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(3-oxo-1-piperazinyl)ethyl]-, (3S)- (CA INDEX NAME)

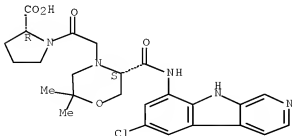
Absolute stereochemistry.



RN 868058-63-3 CAPLUS

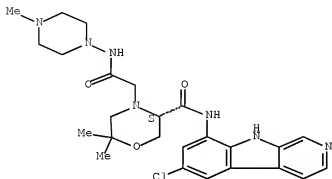
CN D-Proline, 1-[[[(5S)-5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



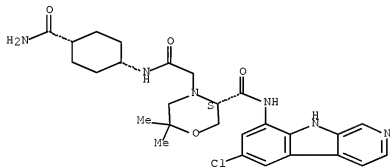
RN 868058-64-4 CAPLUS  
 CN 4-Morpholineacetamide, 5-[[ (6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-N-(4-methyl-1-piperazinyl)-, (5S)- (CA INDEX NAME)

Absolute stereochemistry.



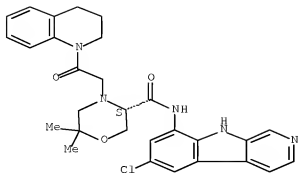
RN 868058-65-5 CAPLUS  
 CN 4-Morpholineacetamide, N-[cis-4-(aminocarbonyl)cyclohexyl]-5-[[ (6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-, (5S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 868058-66-6 CAPLUS  
 CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(3,4-dihydro-1(2H)-quinolinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

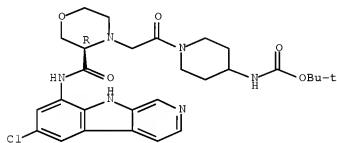
Absolute stereochemistry.



RN 868058-67-7 CAPLUS

CN Carbamic acid, [1-[[[(3R)-3-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-4-morpholinyl]acetyl]-4-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

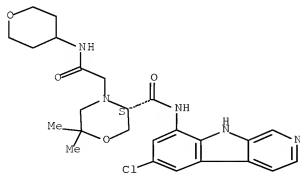
Absolute stereochemistry.



RN 868058-68-8 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-N-(tetrahydro-2H-pyran-4-yl)-, (5S)- (CA INDEX NAME)

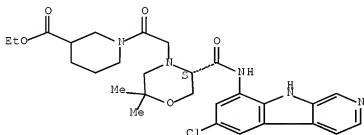
Absolute stereochemistry.



RN 868058-69-9 CAPLUS

CN 3-Piperidinecarboxylic acid, 1-[2-[(5S)-5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]-, ethyl ester (CA INDEX NAME)

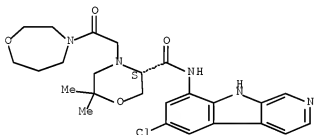
Absolute stereochemistry.



RN 868058-70-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(tetrahydro-1,4-oxazepin-4(5H)-yl)ethyl]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

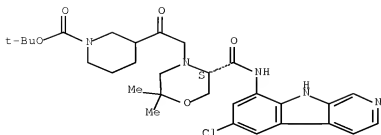


RN 868058-71-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-[2-[(5S)-5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Absolute stereochemistry.

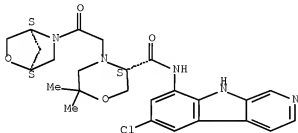




RN 868058-72-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2-(1S,4S)-2-oxa-5-azabicyclo[2.2.1]hept-5-yl-2-oxoethyl)]-, (3S)- (CA INDEX NAME)

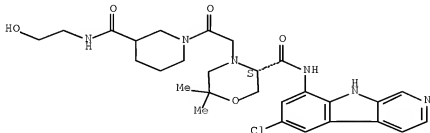
Absolute stereochemistry.



RN 868058-73-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[3-[[2-(hydroxyethyl)amino]carbonyl]-1-piperidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

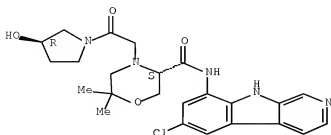
Absolute stereochemistry.



RN 868058-74-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(3R)-3-hydroxy-1-pyrrolidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

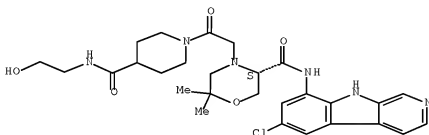
Absolute stereochemistry.



RN 868058-75-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(4-[(2-hydroxyethyl)amino]carbonyl]-1-piperidiny]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

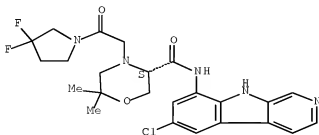
Absolute stereochemistry.



RN 868058-76-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(3,3-difluoro-1-pyrrolidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

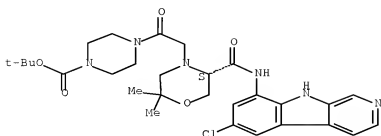
Absolute stereochemistry.



RN 868058-77-9 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[2-[(5S)-5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

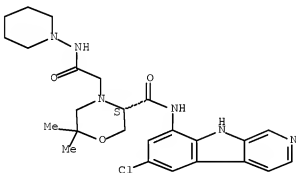
Absolute stereochemistry.



RN 868058-78-0 CAPLUS

CN 4-Morpholineacetamide, 5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-N-1-piperidinyl-, (5S)- (CA INDEX NAME)

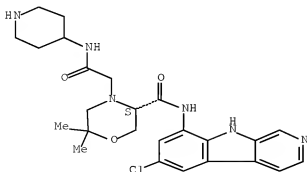
Absolute stereochemistry.



RN 868058-79-1 CAPLUS

CN 4-Morpholineacetamide, 5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-N-4-piperidinyl-, (5S)- (CA INDEX NAME)

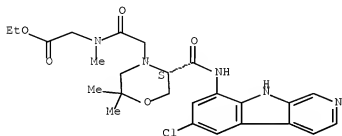
Absolute stereochemistry.



RN 868058-80-4 CAPLUS

CN Glycine, N-[[[(5S)-5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]-N-methyl-, ethyl ester (9CI) (CA INDEX NAME)

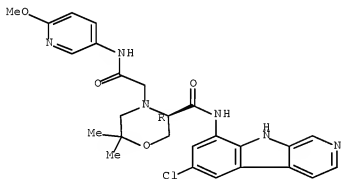
Absolute stereochemistry.



RN 868058-81-5 CAPLUS

CN 4-Morpholineacetamide, 5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N-(6-methoxy-3-pyridinyl)-2,2-dimethyl-, (5R)- (CA INDEX NAME)

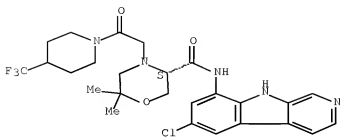
Absolute stereochemistry.



RN 868058-82-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-[4-(trifluoromethyl)-1-piperidinyl]ethyl]-, (3S)- (CA INDEX NAME)

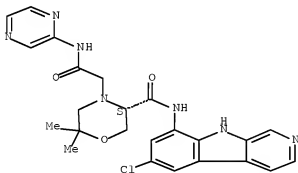
Absolute stereochemistry.



RN 868058-83-7 CAPLUS

CN 4-Morpholineacetamide, 5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl-2,2-dimethyl-N-2-pyrazinyl-, (5S)- (CA INDEX NAME)

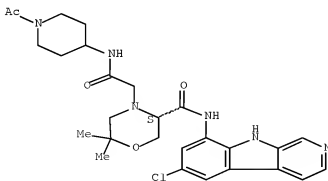
Absolute stereochemistry.



RN 868058-84-8 CAPLUS

CN 4-Morpholineacetamide, N-(1-acetyl-4-piperidinyl)-5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl-2,2-dimethyl-, (5S)- (CA INDEX NAME)

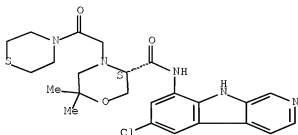
Absolute stereochemistry.



RN 868058-85-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(4-thiomorpholinyl)ethyl]-, (3S)- (CA INDEX NAME)

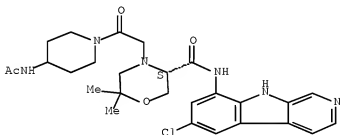
Absolute stereochemistry.



RN 868058-86-0 CAPLUS

CN 3-Morpholinecarboxamide, 4-[2-[4-(acetylamino)-1-piperidinyl]-2-oxoethyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

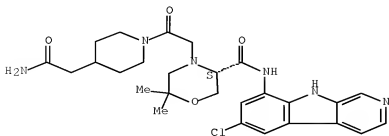
Absolute stereochemistry.



RN 868058-87-1 CAPLUS

CN 3-Morpholinecarboxamide, 4-[2-[4-(2-amino-2-oxoethyl)-1-piperidinyl]-2-oxoethyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

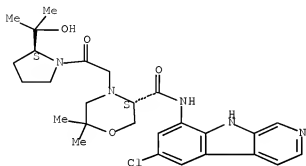
Absolute stereochemistry.



RN 868058-88-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-  
[(2S)-2-(1-hydroxy-1-methylethyl)-1-pyrrolidinyl]-2-oxoethyl]-6,6-dimethyl-  
, (3S)- (CA INDEX NAME)

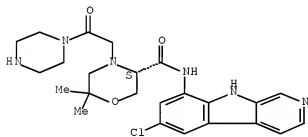
Absolute stereochemistry.



RN 868058-89-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-  
dimethyl-4-[2-oxo-2-(1-piperazinyl)ethyl]-, (3S)- (CA INDEX NAME)

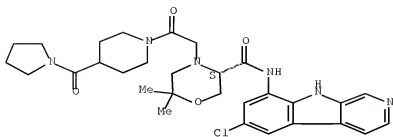
Absolute stereochemistry.



RN 868058-90-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-  
dimethyl-4-[2-oxo-2-[4-(1-pyrrolidinylcarbonyl)-1-piperidinyl]ethyl]-,  
(3S)- (CA INDEX NAME)

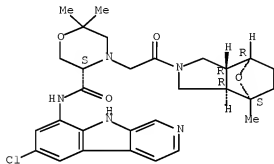
Absolute stereochemistry.



RN 868058-91-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-[(3aR,4S,7R,7aR)-octahydro-4-methyl-4,7-epoxy-2H-isoindol-2-yl]-2-oxoethyl]-, (3S)- (CA INDEX NAME)

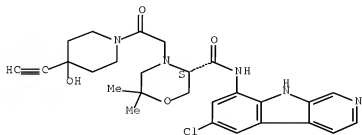
Absolute stereochemistry.



RN 868058-92-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(4-ethynyl-4-hydroxy-1-piperidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

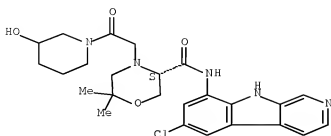


RN 868058-94-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(3-hydroxy-1-piperidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)



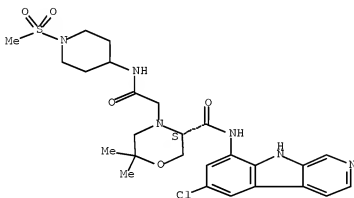
Absolute stereochemistry.



RN 868058-95-1 CAPLUS

CN 4-Morpholineacetamide, 5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-N-[1-(methylsulfonyl)-4-piperidinyl]-, (5S)- (CA INDEX NAME)

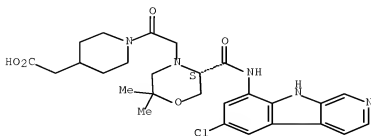
Absolute stereochemistry.



RN 868058-96-2 CAPLUS

CN 4-Piperidineacetic acid, 1-[2-[(5S)-5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]- (CA INDEX NAME)

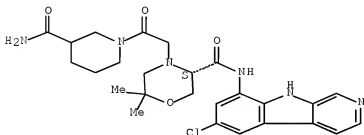
Absolute stereochemistry.



RN 868058-97-3 CAPLUS

CN 3-Morpholinecarboxamide, 4-[2-[3-(aminocarbonyl)-1-piperidinyl]-2-oxoethyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

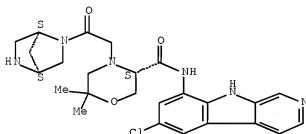
Absolute stereochemistry.



RN 868058-98-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(1S,4S)-2,5-diazabicyclo[2.2.1]hept-2-yl-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

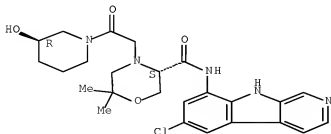
Absolute stereochemistry.



RN 868058-99-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(3R)-3-hydroxy-1-piperidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

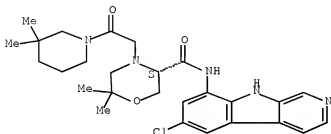
Absolute stereochemistry.



RN 868059-00-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(3,3-dimethyl-1-piperidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

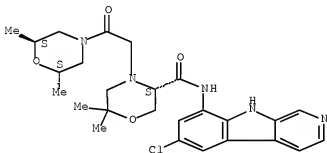
Absolute stereochemistry.



RN 868059-01-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(2S,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

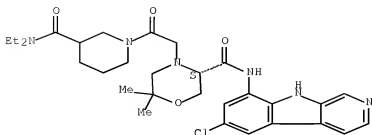
Absolute stereochemistry.



RN 868059-02-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[3-[(diethylamino)carbonyl]-1-piperidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

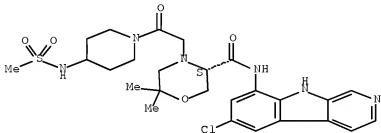
Absolute stereochemistry.



RN 868059-03-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-[4-[(methylsulfonyl)amino]-1-piperidinyl]-2-oxoethyl]-, (3S)- (CA INDEX NAME)

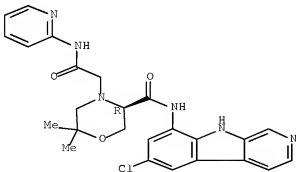
Absolute stereochemistry.



RN 868059-04-5 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-N-2-pyridinyl-, (5R)- (CA INDEX NAME)

Absolute stereochemistry.

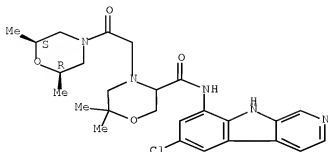


RN 868059-05-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(2R,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-, rel- (CA

INDEX NAME)

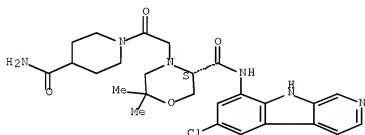
Relative stereochemistry.



RN 868059-06-7 CAPLUS

CN 3-Morpholinecarboxamide, 4-[2-[4-(aminocarbonyl)-1-piperidinyl]-2-oxoethyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

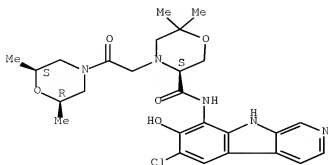
Absolute stereochemistry.



RN 868059-07-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-7-hydroxy-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(2R,6S)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

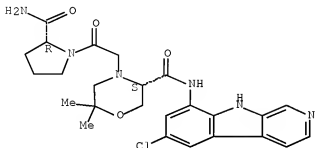
Absolute stereochemistry.



RN 868059-08-9 CAPLUS

CN 3-Morpholinecarboxamide, 4-[2-[(2R)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-oxoethyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)-(9CI) (CA INDEX NAME)

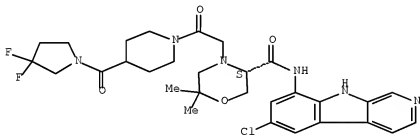
Absolute stereochemistry.



RN 868059-09-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[4-[(3,3-difluoro-1-pyrrolidinyl)carbonyl]-1-piperidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

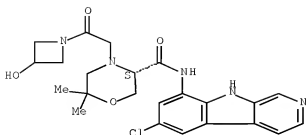
Absolute stereochemistry.



RN 868059-10-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(3-hydroxy-1-azetidiny)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

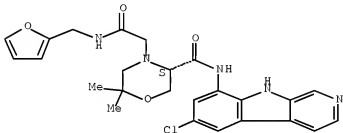
Absolute stereochemistry.



RN 868059-11-4 CAPLUS

CN 4-Morpholineacetamide, 5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-N-(2-furanylmethyl)-2,2-dimethyl-, (5S)- (CA INDEX NAME)

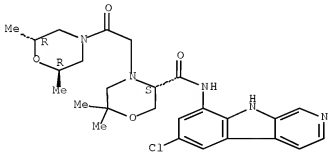
Absolute stereochemistry.



RN 868059-12-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(2R,6R)-2,6-dimethyl-4-morpholinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

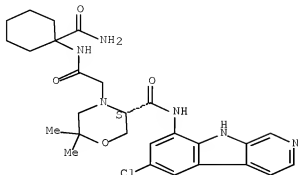
Absolute stereochemistry.



RN 868059-13-6 CAPLUS

CN 4-Morpholineacetamide, N-[1-(aminocarbonyl)cyclohexyl]-5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-2,2-dimethyl-, (5S)- (CA INDEX NAME)

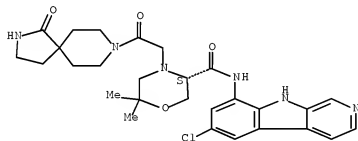
Absolute stereochemistry.



RN 868059-14-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(1-oxo-2,8-diazaspiro[4.5]dec-8-yl)ethyl]-, (3S)- (CA INDEX NAME)

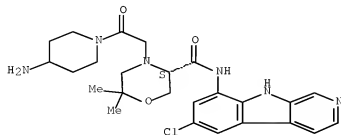
Absolute stereochemistry.



RN 868059-15-8 CAPLUS

CN 3-Morpholinecarboxamide, 4-[2-(4-amino-1-piperidinyl)-2-oxoethyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

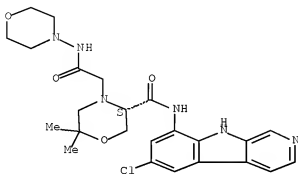




RN 868059-16-9 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-N-4-morpholinyl-, (5S)- (CA INDEX NAME)

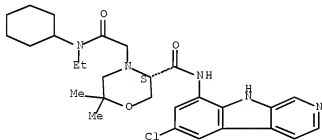
Absolute stereochemistry.



RN 868059-17-0 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N-cyclohexyl-N-ethyl-2,2-dimethyl-, (5S)- (CA INDEX NAME)

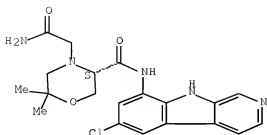
Absolute stereochemistry.



RN 868059-18-1 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-, (5S)- (CA INDEX NAME)

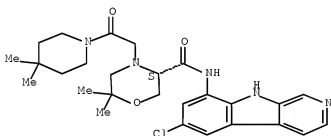
Absolute stereochemistry.



RN 868059-19-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(4,4-dimethyl-1-piperidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

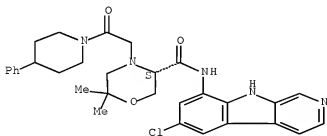
Absolute stereochemistry.



RN 868059-20-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(4-phenyl-1-piperidinyl)ethyl]-, (3S)- (CA INDEX NAME)

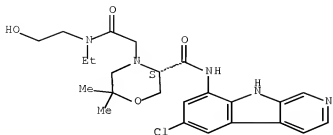
Absolute stereochemistry.



RN 868059-21-6 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N-ethyl-N-(2-hydroxyethyl)-2,2-dimethyl-, (5S)- (CA INDEX NAME)

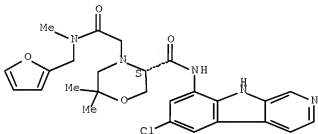
Absolute stereochemistry.



RN 868059-22-7 CAPLUS

CN 4-Morpholineacetamide, 5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl-N-(2-furanylmethyl)-N,2,2-trimethyl-, (5S)- (CA INDEX NAME)

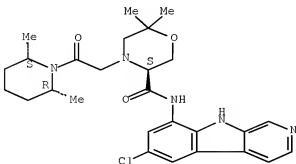
Absolute stereochemistry.



RN 868059-23-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(2R,6S)-2,6-dimethyl-1-piperidiny]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

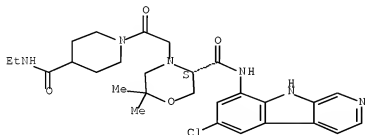


RN 868059-24-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[4-

[(ethylamino)carbonyl]-1-piperidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)-  
(CA INDEX NAME)

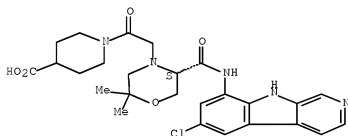
Absolute stereochemistry.



RN 868059-25-0 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-[2-[(5S)-5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]- (CA INDEX NAME)

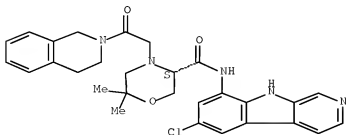
Absolute stereochemistry.



RN 868059-26-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(3,4-dihydro-2(1H)-isoquinolinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

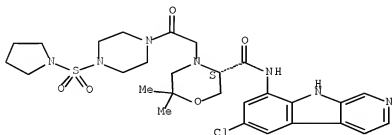
Absolute stereochemistry.



RN 868059-27-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-[4-(1-pyrrolidinylsulfonyl)-1-piperazinyl]ethyl]-, (3S)- (CA INDEX NAME)

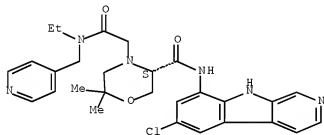
Absolute stereochemistry.



RN 868059-28-3 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N-ethyl-2,2-dimethyl-N-(4-pyridinylmethyl)-, (5S)- (CA INDEX NAME)

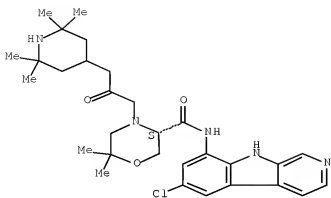
Absolute stereochemistry.



RN 868059-29-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-3-(2,2,6,6-tetramethyl-4-piperidiny)propyl]-, (3S)- (CA INDEX NAME)

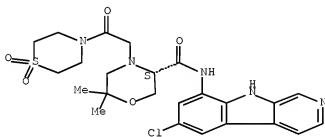
Absolute stereochemistry.



RN 868059-30-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(1,1-dioxido-4-thiomorpholinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

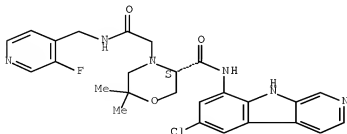
Absolute stereochemistry.



RN 868059-31-8 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N-[(3-fluoro-4-pyridinyl)methyl]-2,2-dimethyl-, (5S)- (CA INDEX NAME)

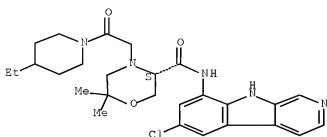
Absolute stereochemistry.



RN 868059-32-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(4-ethyl-1-piperidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

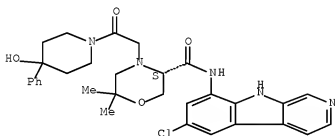
Absolute stereochemistry.



RN 868059-33-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(4-hydroxy-4-phenyl-1-piperidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

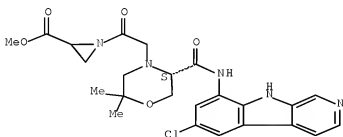
Absolute stereochemistry.



RN 868059-34-1 CAPLUS

CN 2-Aziridinecarboxylic acid, 1-[2-[(5S)-5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl-, methyl ester (CA INDEX NAME)

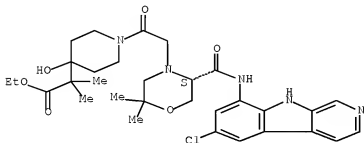
Absolute stereochemistry.



RN 868059-35-2 CAPLUS

CN 4-Piperidineacetic acid, 1-[2-[(5S)-5-[[ (6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]-4-hydroxy- $\alpha,\alpha$ -dimethyl-, ethyl ester (CA INDEX NAME)

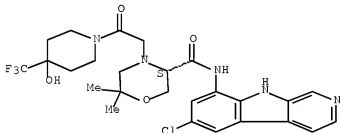
Absolute stereochemistry.



RN 868059-36-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[4-hydroxy-4-(trifluoromethyl)-1-piperidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

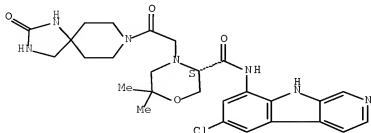
Absolute stereochemistry.



RN 868059-37-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(2-oxo-1,3,8-triazaspiro[4.5]dec-8-yl)ethyl]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

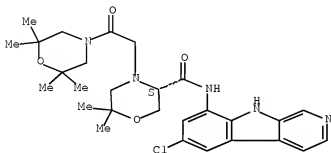




RN 868059-38-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(2,2,6,6-tetramethyl-4-morpholinyl)ethyl]-, (3S)- (CA INDEX NAME)

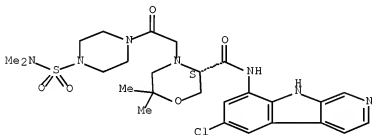
Absolute stereochemistry.



RN 868059-39-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[4-(dimethylamino)sulfonyl]-1-piperazinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

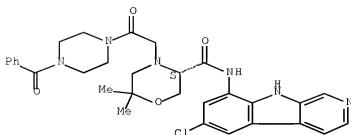
Absolute stereochemistry.



RN 868059-40-9 CAPLUS

CN 3-Morpholinecarboxamide, 4-[2-(4-benzoyl-1-piperazinyl)-2-oxoethyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

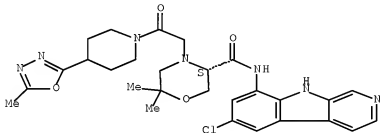
Absolute stereochemistry.



RN 868059-41-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-[4-(5-methyl-1,3,4-oxadiazol-2-yl)-1-piperidinyl]-2-oxoethyl]-, (3S)- (CA INDEX NAME)

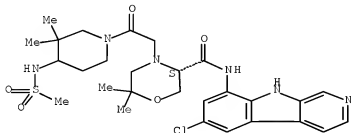
Absolute stereochemistry.



RN 868059-42-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[3,3-dimethyl-4-[(methylsulfonyl)amino]-1-piperidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

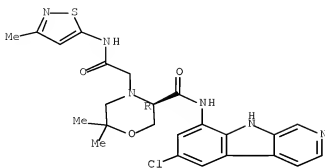
Absolute stereochemistry.



RN 868059-43-2 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-2,2-dimethyl-N-(3-methyl-5-isothiazolyl)-, (5R)- (CA INDEX NAME)

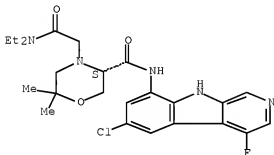
Absolute stereochemistry.



RN 868059-44-3 CAPLUS

CN 4-Morpholineacetamide, 5-[[[(6-chloro-4-fluoro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N,N-diethyl-2,2-dimethyl-, (5S)- (CA INDEX NAME)

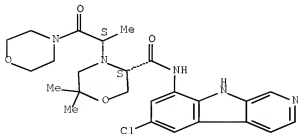
Absolute stereochemistry.



RN 868059-45-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(1S)-1-methyl-2-(4-morpholinyl)-2-oxoethyl]-, (3S)- (CA INDEX NAME)

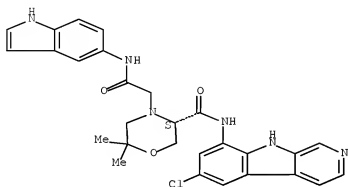
Absolute stereochemistry.



RN 868059-46-5 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N-1H-indol-5-yl-2,2-dimethyl-, (5S)- (CA INDEX NAME)

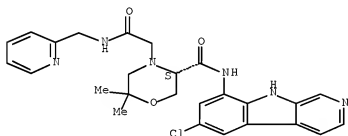
Absolute stereochemistry.



RN 868059-47-6 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N-(2-pyridinylmethyl)-, (5S)- (CA INDEX NAME)

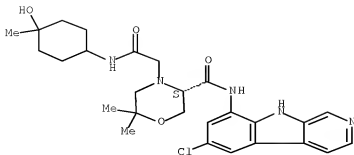
Absolute stereochemistry.



RN 868140-14-1 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N-(4-hydroxy-4-methylcyclohexyl)-2,2-dimethyl-, (5S)- (CA INDEX NAME)

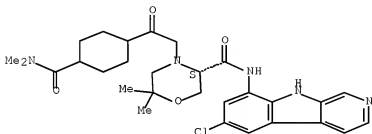
Absolute stereochemistry.



RN 868140-17-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[4-[(dimethylamino)carbonyl]cyclohexyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



IT 783348-96-9P 783349-03-1P

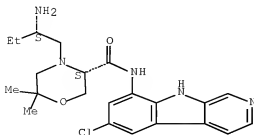
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(invention compound; preparation of substituted  $\beta$ -carboline IKK kinase 2 (IKK-2) inhibitors as potential antiinflammatory, immunomodulatory, or anticancer agents)

RN 783348-96-9 CAPLUS

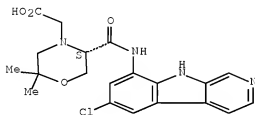
CN 3-Morpholinecarboxamide, 4-[(2S)-2-aminobutyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 783349-03-1 CAPLUS  
 CN 4-Morpholineacetic acid, 5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-2,2-dimethyl-, (5S)- (CA INDEX NAME)

Absolute stereochemistry.

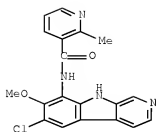


IT	783348-36-7P	783348-37-8P	783348-38-9P
	783348-39-0P	783348-40-3P	783348-41-4P
	783348-42-5P	783348-43-6P	783348-44-7P
	783348-45-8P	783348-46-9P	783348-48-1P
	783348-49-2P	783348-50-5P	783348-51-6P
	783348-52-7P	783348-53-8P	783348-54-9P
	783348-55-0P	783348-57-2P	783348-58-3P
	783348-59-4P	783348-61-8P	783348-62-9P
	783348-63-0P	783348-64-1P	783348-65-2P
	783348-66-3P	783348-67-4P	783348-69-6P
	783348-71-0P	783348-72-1P	783348-73-2P
	783348-74-3P	783348-75-4P	783348-76-5P
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	783349-19-9P	783349-20-2P	783349-21-3P
	783349-22-4P	783349-23-5P	783349-24-6P
	783349-25-7P	783349-26-8P	783349-27-9P
	783349-28-0P	783349-29-1P	783349-30-4P
	783349-31-5P	783349-32-6P	783349-34-0P
	783349-35-1P		

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

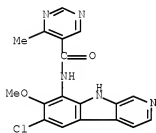
(invention compound; preparation of substituted  $\beta$ -carboline IKK kinase 2 (IKK-2) inhibitors as potential antiinflammatory, immunomodulatory, or anticancer agents)

RN 783348-36-7 CAPLUS  
 CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



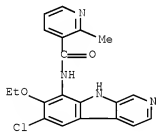
RN 783348-37-8 CAPLUS

CN 5-Pyrimidinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-4-methyl- (CA INDEX NAME)



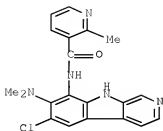
RN 783348-38-9 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



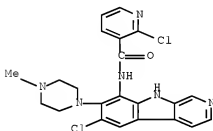
RN 783348-39-0 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-7-(dimethylamino)-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



RN 783348-40-3 CAPLUS

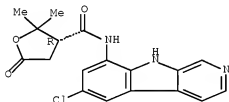
CN 3-Pyridinecarboxamide, 2-chloro-N-[6-chloro-7-(4-methyl-1-piperazinyl)-9H-pyrido[3,4-b]indol-8-yl]- (CA INDEX NAME)



RN 783348-41-4 CAPLUS

CN 3-Furancarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)tetrahydro-2,2-dimethyl-5-oxo-, (3R)- (CA INDEX NAME)

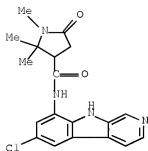
Absolute stereochemistry.



RN 783348-42-5 CAPLUS

CN 3-Pyrrolidinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-1,2,2-trimethyl-5-oxo- (CA INDEX NAME)

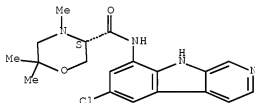




RN 783348-43-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4,6,6-trimethyl-, (3S)- (CA INDEX NAME)

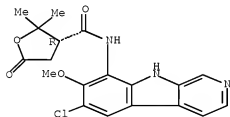
Absolute stereochemistry.



RN 783348-44-7 CAPLUS

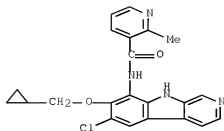
CN 3-Furancarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)tetrahydro-2,2-dimethyl-5-oxo-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



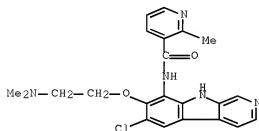
RN 783348-45-8 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-7-(cyclopropylmethoxy)-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



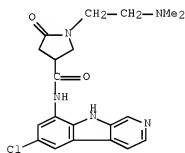
RN 783348-46-9 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-7-[2-(dimethylamino)ethoxy]-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



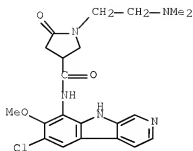
RN 783348-48-1 CAPLUS

CN 3-Pyrrolidinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-1-[2-(dimethylamino)ethyl]-5-oxo- (CA INDEX NAME)



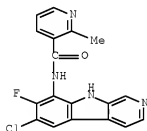
RN 783348-49-2 CAPLUS

CN 3-Pyrrolidinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-1-[2-(dimethylamino)ethyl]-5-oxo- (CA INDEX NAME)



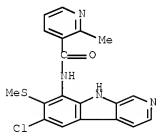
RN 783348-50-5 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-fluoro-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



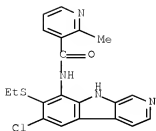
RN 783348-51-6 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-7-(methylthio)-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



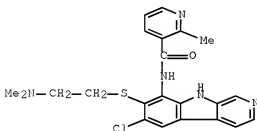
RN 783348-52-7 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-7-(ethylthio)-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



RN 783348-53-8 CAPLUS

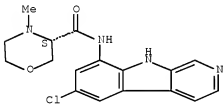
CN 3-Pyridinecarboxamide, N-[6-chloro-7-[[2-(dimethylamino)ethyl]thio]-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



RN 783348-54-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-methyl-, (3S)- (CA INDEX NAME)

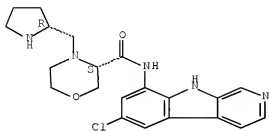
Absolute stereochemistry.



RN 783348-55-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2R)-2-pyrrolidinylmethyl]-, (3S)- (CA INDEX NAME)

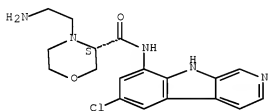
Absolute stereochemistry.



RN 783348-57-2 CAPLUS

CN 3-Morpholinecarboxamide, 4-(2-aminoethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, (3S)- (CA INDEX NAME)

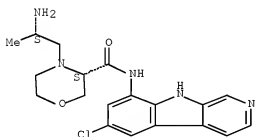
Absolute stereochemistry.



RN 783348-58-3 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, (3S)- (CA INDEX NAME)

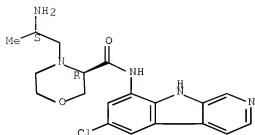
Absolute stereochemistry.



RN 783348-59-4 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, (3R)- (CA INDEX NAME)

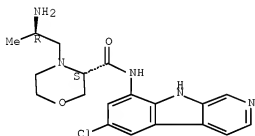
Absolute stereochemistry.



RN 783348-61-8 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2R)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, (3S)- (CA INDEX NAME)

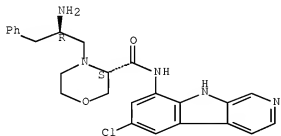
Absolute stereochemistry.



RN 783348-62-9 CAPLUS

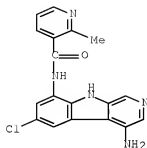
CN 3-Morpholinecarboxamide, 4-[(2R)-2-amino-3-phenylpropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



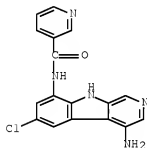
RN 783348-63-0 CAPLUS

CN 3-Pyridinecarboxamide, N-(4-amino-6-chloro-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



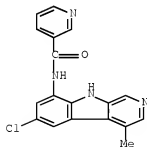
RN 783348-64-1 CAPLUS

CN 3-Pyridinecarboxamide, N-(4-amino-6-chloro-9H-pyrido[3,4-b]indol-8-yl)-  
(CA INDEX NAME)



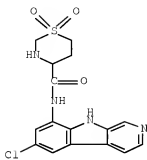
RN 783348-65-2 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-4-methyl-9H-pyrido[3,4-b]indol-8-yl)-  
(CA INDEX NAME)



RN 783348-66-3 CAPLUS

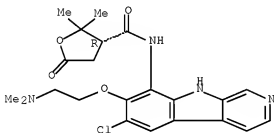
CN 2H-1,3-Thiazine-4-carboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)tetrahydro-, 1,1-dioxide (CA INDEX NAME)



RN 783348-67-4 CAPLUS

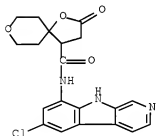
CN 3-Furancarboxamide, N-[6-chloro-7-[2-(dimethylamino)ethoxy]-9H-pyrido[3,4-b]indol-8-yl]tetrahydro-2,2-dimethyl-5-oxo-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 783348-69-6 CAPLUS

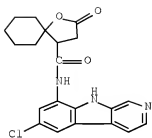
CN 1,8-Dioxaspiro[4.5]decane-4-carboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-2-oxo- (CA INDEX NAME)



RN 783348-71-0 CAPLUS

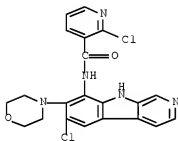
CN 1-Oxaspiro[4.5]decane-4-carboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-2-oxo- (CA INDEX NAME)





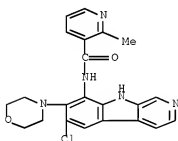
RN 783348-72-1 CAPLUS

CN 3-Pyridinecarboxamide, 2-chloro-N-[6-chloro-7-(4-morpholinyl)-9H-pyrido[3,4-b]indol-8-yl]- (CA INDEX NAME)



RN 783348-73-2 CAPLUS

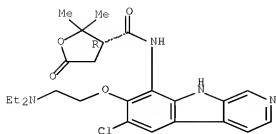
CN 3-Pyridinecarboxamide, N-[6-chloro-7-(4-morpholinyl)-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



RN 783348-74-3 CAPLUS

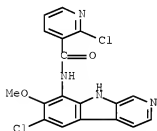
CN 3-Furancarboxamide, N-[6-chloro-7-[2-(diethylamino)ethoxy]-9H-pyrido[3,4-b]indol-8-yl]tetrahydro-2,2-dimethyl-5-oxo-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 783348-75-4 CAPLUS

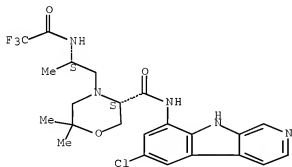
CN 3-Pyridinecarboxamide, 2-chloro-N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



RN 783348-76-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(2,2,2-trifluoroacetyl)amino]propyl]-, (3S)- (CA INDEX NAME)

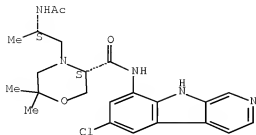
Absolute stereochemistry.



RN 783348-78-7 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-(acetylamino)propyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

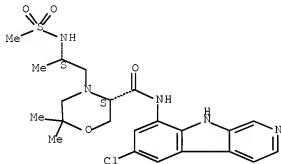
Absolute stereochemistry.



RN 783348-80-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(methylsulfonyl)amino]propyl]-, (3S)- (CA INDEX NAME)

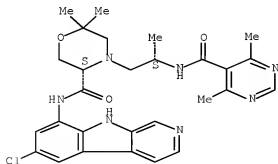
Absolute stereochemistry.



RN 783348-81-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2S)-2-[[4,6-dimethyl-5-pyrimidinyl]carbonyl]amino]propyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

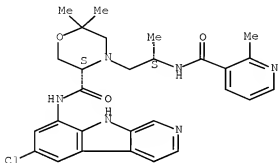
Absolute stereochemistry.



RN 783348-82-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(2-methyl-3-pyridinyl)carbonyl]amino]propyl]-, (3S)- (CA INDEX NAME)

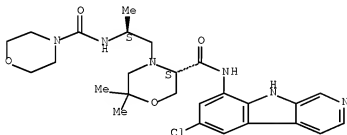
Absolute stereochemistry.



RN 783348-84-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(4-morpholinylcarbonyl)amino]propyl]-, (3S)- (CA INDEX NAME)

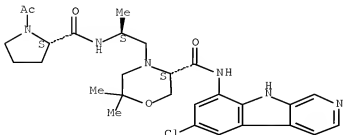
Absolute stereochemistry.



RN 783348-85-6 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-[[[(2S)-1-acetyl-2-pyrrolidinyl]carbonyl]amino]propyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

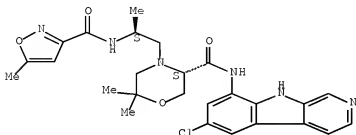
Absolute stereochemistry.



RN 783348-86-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(5-methyl-3-isoxazolyl)carbonyl]amino]propyl]-, (3S)- (CA INDEX NAME)

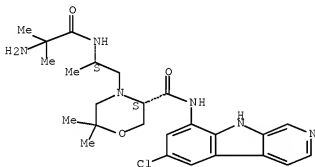
Absolute stereochemistry.



RN 783348-87-8 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-[(2-amino-2-methyl-1-oxopropyl)amino]propyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

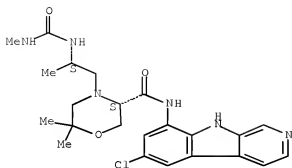
Absolute stereochemistry.



RN 783348-88-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(methylamino)carbonyl]amino]propyl]-, (3S)- (CA INDEX NAME)

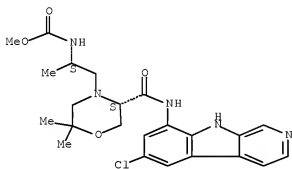
Absolute stereochemistry.



RN 783348-89-0 CAPLUS

CN Carbamic acid, [(1S)-2-[(5S)-5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]-1-methylethyl]-, methyl ester (9CI) (CA INDEX NAME)

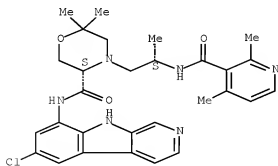
Absolute stereochemistry.



RN 783348-90-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2S)-2-[[[(2,4-dimethyl-3-pyridinyl)carbonyl]amino]propyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



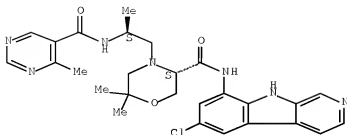
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(2-pyrazinylcarbonyl)amino]propyl]-, (3S)- (CA INDEX NAME)

CN 3,4-Pyridinedicarboxamide, N4-[(1S)-2-[(5S)-5-[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]-1-methylethyl]-N3-methyl- (CA INDEX NAME)

CN1C(=O)c2cnc3c2c(=O)[nH]3SC1(C)CCN(C(=O)Nc1ccc2c(c1)c3ccncc3[nH]2)c4ccccc4

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(4-methyl-5-pyrimidinyl)carbonyl]amino]propyl]-, (3S)- (CA INDEX NAME)

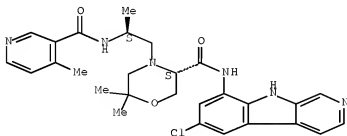
Absolute stereochemistry.



RN 783348-94-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(4-methyl-3-pyridinyl)carbonyl]amino]propyl]-, (3S)- (CA INDEX NAME)

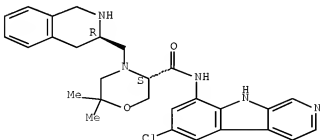
Absolute stereochemistry.



RN 783348-95-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(3R)-1,2,3,4-tetrahydro-3-isoquinolinyl]methyl]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

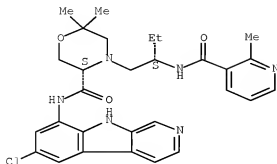


RN 783348-97-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(2-methyl-3-pyridinyl)carbonyl]amino]butyl]-, (3S)- (CA INDEX NAME)



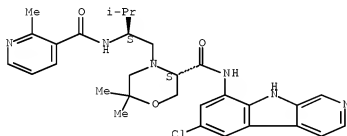
Absolute stereochemistry.



RN 783348-98-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-3-methyl-2-[[ (2-methyl-3-pyridinyl)carbonyl]amino]butyl]-, (3S)- (CA INDEX NAME)

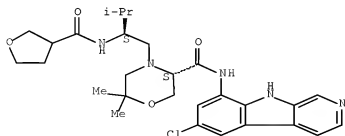
Absolute stereochemistry.



RN 783348-99-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-3-methyl-2-[[ (tetrahydro-3-furanyl)carbonyl]amino]butyl]-, (3S)- (CA INDEX NAME)

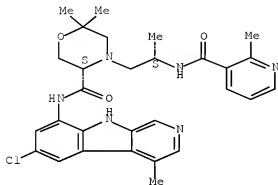
Absolute stereochemistry.



RN 783349-00-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-4-methyl-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[[ (2-methyl-3-pyridinyl)carbonyl]amino]propyl]-, (3S)- (CA INDEX NAME)

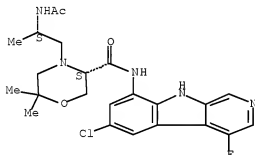
Absolute stereochemistry.



RN 783349-01-9 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-(acetylamino)propyl]-N-(6-chloro-4-fluoro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

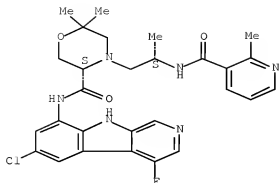
Absolute stereochemistry.



RN 783349-02-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-4-fluoro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[[ (2-methyl-3-pyridinyl)carbonyl]amino]propyl]-, (3S)- (CA INDEX NAME)

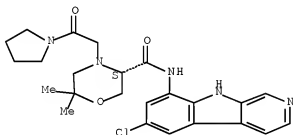
Absolute stereochemistry.



RN 783349-04-2 CAPLUS

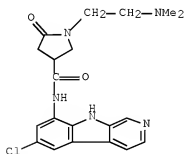
CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(1-pyrrolidinyl)ethyl]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 783349-06-4 CAPLUS

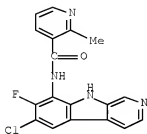
CN 3-Pyrrolidinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-1-[2-(dimethylamino)ethyl]-5-oxo-, hydrochloride (1:2) (CA INDEX NAME)



● 2 HCl

RN 783349-07-5 CAPLUS

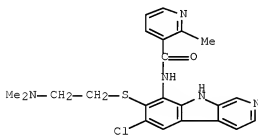
CN 3-Pyridinecarboxamide, N-(6-chloro-7-fluoro-9H-pyrido[3,4-b]indol-8-yl)-2-methyl-, hydrochloride (1:2) (CA INDEX NAME)



●2 HCl

RN 783349-08-6 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-7-[[2-(dimethylamino)ethyl]thio]-9H-pyrido[3,4-b]indol-8-yl]-2-methyl-, hydrochloride (1:3) (CA INDEX NAME)

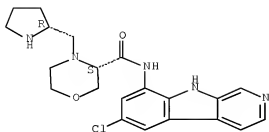


●3 HCl

RN 783349-09-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2R)-2-pyrrolidinylmethyl]-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

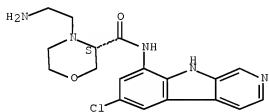


● HCl

RN 783349-10-0 CAPLUS

CN 3-Morpholinecarboxamide, 4-(2-aminoethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

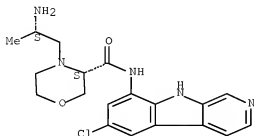


● HCl

RN 783349-11-1 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

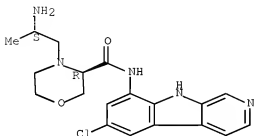


● HCl

RN 783349-12-2 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, hydrochloride (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.

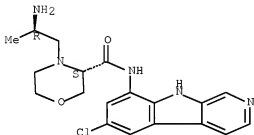


● HCl

RN 783349-13-3 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2R)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

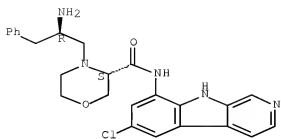


● HCl

RN 783349-14-4 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2R)-2-amino-3-phenylpropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

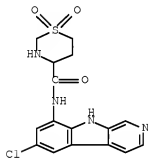
Absolute stereochemistry.



● HCl

RN 783349-15-5 CAPLUS

CN 2H-1,3-Thiazine-4-carboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)tetrahydro-, 1,1-dioxide, hydrochloride (1:2) (CA INDEX NAME)

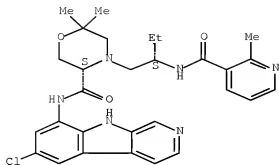


●2 HCl

RN 783349-16-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(2-methyl-3-pyridinyl)carbonyl]amino]butyl]-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

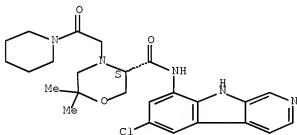


● HCl

RN 783349-17-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(1-piperidinyl)ethyl]-, (3S)- (CA INDEX NAME)

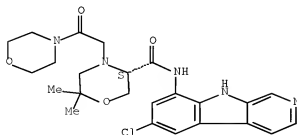
Absolute stereochemistry.



RN 783349-18-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-(4-morpholinyl)-2-oxoethyl]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



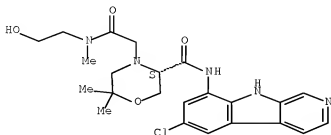
RN 783349-19-9 CAPLUS

CN 4-Morpholineacetamide, 5-[[4-(6-chloro-9H-pyrido[3,4-b]indol-8-



yl)amino]carbonyl]-N-(2-hydroxyethyl)-N,2,2-trimethyl-, (5S)- (CA INDEX NAME)

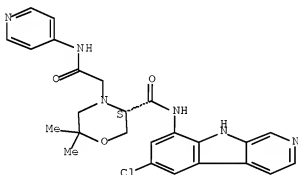
Absolute stereochemistry.



RN 783349-20-2 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-N-4-pyridinyl-, hydrochloride (1:1), (5S)- (CA INDEX NAME)

Absolute stereochemistry.

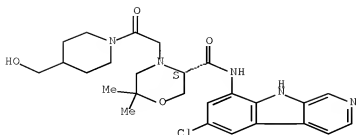


● HCl

RN 783349-21-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[4-(hydroxymethyl)-1-piperidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

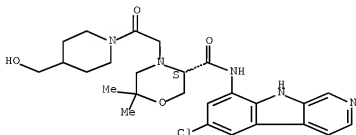
Absolute stereochemistry.



RN 783349-22-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(4-(hydroxymethyl)-1-piperidinyl)-2-oxoethyl]-6,6-dimethyl-, hydrochloride (1:2), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

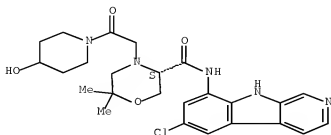


●2 HCl

RN 783349-23-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(4-(hydroxy-1-piperidinyl)-2-oxoethyl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

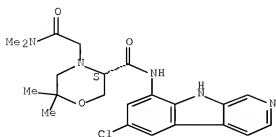
Absolute stereochemistry.



RN 783349-24-6 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N,N,2,2-tetramethyl-, (5S)- (CA INDEX NAME)

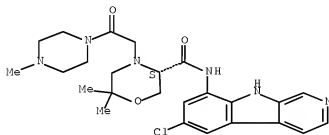
Absolute stereochemistry.



RN 783349-25-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-(4-methyl-1-piperazinyl)-2-oxoethyl]-, (3S)- (CA INDEX NAME)

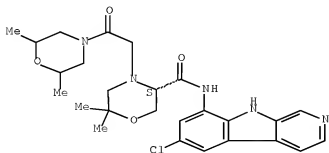
Absolute stereochemistry.



RN 783349-26-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(2,6-dimethyl-4-morpholinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

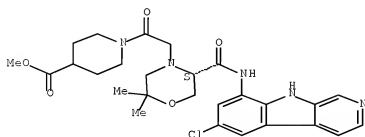


RN 783349-27-9 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-[2-[(5S)-5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]-2-oxoethyl]-2-methyl-2-oxoethyl]-2-methyl-2-oxoethyl]-, (5S)- (CA INDEX NAME)

b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl]-, methyl ester (CA INDEX NAME)

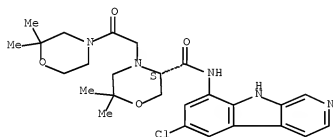
Absolute stereochemistry.



RN 783349-28-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(2,2-dimethyl-4-morpholinyl)-2-oxoethyl]-6,6-dimethyl-, hydrochloride (1:2), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

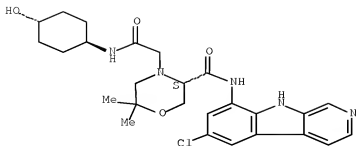


● 2 HCl

RN 783349-29-1 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N-(trans-4-hydroxycyclohexyl)-2,2-dimethyl-, (5S)- (CA INDEX NAME)

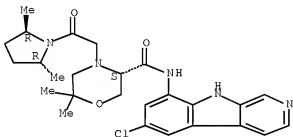
Absolute stereochemistry.



RN 783349-30-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(2R,5R)-2,5-dimethyl-1-pyrrolidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

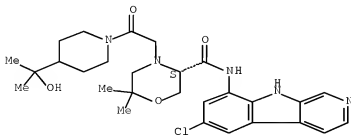
Absolute stereochemistry.



RN 783349-31-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[4-(1-hydroxy-1-methylethyl)-1-piperidiny]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

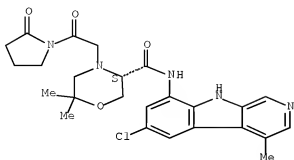
Absolute stereochemistry.



RN 783349-32-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-4-methyl-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(2-oxo-1-pyrrolidinyl)ethyl]-, (3S)- (CA INDEX NAME)

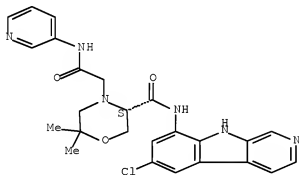
Absolute stereochemistry.



RN 783349-94-0 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-2,2-dimethyl-N-3-pyridinyl-, hydrochloride (1:1), (5S)- (CA INDEX NAME)

Absolute stereochemistry.

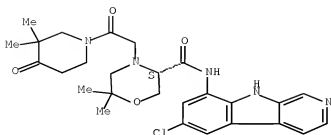


● HCl

RN 783349-95-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(3,3-dimethyl-4-oxo-1-piperidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

L3 ANSWER 33 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:1026485 CAPLUS Full-text

DOCUMENT NUMBER: 143:299106

TITLE: Methods using I $\kappa$ B kinase (IKK) inhibitors for treating or preventing graft-vs.-host disease  
INVENTOR(S): Blazar, Bruce R.; O'Shaughnessy, Matthew J.; Vogtenhuber, Christine; Serody, Jonathan S.; Baldwin, Albert S.

PATENT ASSIGNEE(S): University of North Carolina at Chapel Hill, USA  
SOURCE: U.S. Pat. Appl. Publ., 34 pp., Cont.-in-part of U.S. Ser. No. 374,222, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050208036	A1	20050922	US 2005-32630	20050110
US 20040166095	A1	20040826	US 2003-374222	20030225
PRIORITY APPLN. INFO.:			US 2003-374222	B2 20030225

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Methods are provided for administering alloreactive T cells to transplant recipients such that the risk of graft-vs.-host disease is reduced. The methodol. of the invention includes the use of I $\kappa$ B kinase inhibitors to inhibit NF- $\kappa$ B activation.

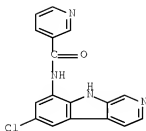
IT 431898-65-6, PS 1145

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(I $\kappa$ B kinase inhibitors for treating or preventing graft-vs.-host disease)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



L3 ANSWER 34 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:666436 CAPLUS Full-text

DOCUMENT NUMBER: 143:301630

TITLE: Real-time imaging of ligand-induced IKK activation in intact cells and in living mice

AUTHOR(S): Gross, Shimon; Piwnicka-Worms, David

CORPORATE SOURCE: Molecular Imaging Center, Mallinckrodt Institute of Radiology, Washington University School of Medicine, St. Louis, MO, 63110, USA

SOURCE: Nature Methods (2005), 2(8), 607-614

CODEN: NMAEA3; ISSN: 1548-7091

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The transcription factor NF- $\kappa$ B is a key regulator of cellular activation, proliferation and apoptosis. Defects in the NF- $\kappa$ B pathway contribute to a broad array of malignant, neurodegenerative and chronic inflammatory diseases. IKK-dependent I $\kappa$ B $\alpha$  degradation by the 26S proteasome is a critical NF- $\kappa$ B regulatory control point, which is emerging as an important target for drug development. To directly monitor regulation of IKK activation in intact organisms, the authors engineered an I $\kappa$ B $\alpha$ -firefly Luciferase (I $\kappa$ B $\alpha$ -FLuc) fusion reporter. In cultured cells and living animals, the reporter provided a continuous, noninvasive readout of the kinetics of ligand-induced IKK activation and the pharmacodynamics of selective inhibitors of both IKK and the 26S proteasome. This I $\kappa$ B $\alpha$ -FLuc reporter now permits continuous readout of IKK activation in vivo, facilitates development and validation of target-specific therapeutics, and complements conventional NF- $\kappa$ B transcriptional reporters for more complete temporal and regional investigations of the NF- $\kappa$ B signaling pathway in health and disease.

IT 431898-65-6, PS-1145

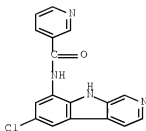
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(real-time imaging of ligand-induced I $\kappa$ B protein kinase activation in intact cells and in living mice with liver inflammation and tumors and effect of drugs)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)





OS.CITING REF COUNT: 38 THERE ARE 38 CAPLUS RECORDS THAT CITE THIS RECORD (38 CITINGS)  
 REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 35 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:455511 CAPLUS Full-text

DOCUMENT NUMBER: 143:150744

TITLE: Human myeloma cells adhere to fibronectin in response to hepatocyte growth factor

AUTHOR(S): Holt, Randi Utne; Baykov, Vadim; Ro, Torstein Baade; Brabrand, Sigmund; Waage, Anders; Sundan, Anders; Borset, Magne

CORPORATE SOURCE: Dept. of Cancer Research and Molecular Medicine, Norwegian University of Science and Technology, Trondheim, Norway

SOURCE: Haematologica (2005), 90(4), 479-488

CODEN: HAEMAX; ISSN: 0390-6078

PUBLISHER: Ferrata Storti Foundation

DOCUMENT TYPE: Journal

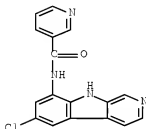
LANGUAGE: English

AB Multiple myeloma is characterized by an accumulation of malignant plasma cells in the bone marrow. Inside the bone marrow, adhesion of myeloma cells to extracellular matrix proteins such as fibronectin may promote cell survival and induce drug resistance. In this work we examined the effect of hepatocyte growth factor (HGF) on the adhesion of myeloma cells and the signaling pathways involved. Cell adhesion expts. were performed with the human myeloma cell line INA-6 and primary myeloma cells. The HGF signaling pathway was studied in INA-6 cells with the use of antibodies against VLA-4 integrin, and with inhibitors of various intracellular signaling mols. We found that HGF stimulated adhesion of myeloma cells to fibronectin. This event was dependent on the  $\alpha 4$  and  $\beta 1$  integrin subunits (VLA-4), but HGF did not increase the expression of integrins on the cell surface. Our findings suggest that HGF promotes myeloma cells to adhere via activation of the phosphatidylinositol 3-kinase (PI3K) pathway independently of AKT, but possibly through the involvement of nuclear factor  $\kappa B$  (NF- $\kappa B$ ). INA-6 cells adhered to fibronectin after stimulation by insulin-like growth factor or stromal cell-derived factor 1 $\alpha$ , but this adhesion was less dependent on PI3K than HGF-mediated adhesion. This work points to HGF as a pro-adhesive factor in cell adherence to the bone marrow matrix protein fibronectin, an event known to promote cancer cell survival and drug resistance. Inhibiting HGF, its receptor c-Met or the VLA-4 integrin may be beneficial to the myeloma patient.

IT 421898-65-6, PS-1145

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (human myeloma cells adhere to fibronectin in response to hepatocyte growth factor)

RN 431898-65-6 CAPLUS  
CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)  
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 36 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:404628 CAPLUS Full-text

DOCUMENT NUMBER: 144:88189

TITLE: Synthesis of C-14-labeled novel IKK inhibitor:  
2-[14C]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-3-pyridinecarboxamide

AUTHOR(S): Li, Yuxian; Prakash, Shimoga R.

CORPORATE SOURCE: Department of Drug Metabolism and Pharmacokinetics,  
Radiochemistry Group, Millennium Pharmaceuticals,  
Cambridge, MA, 02139, USA

SOURCE: Journal of Labelled Compounds & Radiopharmaceuticals  
(2005), 48(5), 323-330

CODEN: JLCRD4; ISSN: 0362-4803

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 144:88189

AB 2-[14C]-N-(6-Chloro-9H-pyrido[3,4-b]indol-8-yl)-3-pyridinecarboxamide (also referred to as [14C]-PS-1145) was synthesized from [14C]-paraformaldehyde in five steps in an overall radiochem. yield of 15%. The key intermediate 1-[14C]-6-chloro-1,2,3,4-tetrahydro- $\beta$ - carboline was obtained by Pictet-Spengler cyclization of chlorotryptamine with [14C]-paraformaldehyde. Similar reactions were conducted with tryptamine to address the generality of the methodol.

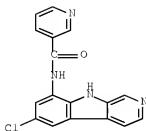
IT 431898-65-6P, PS-1145 872416-18-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of carbon-14-labeled N-(chloropyrido[3,4-b]indolyl)pyridinecarboxamide via Pictet-Spengler cyclization of chlorotryptamine with labeled paraformaldehyde)

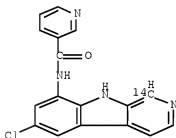
RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



RN 872416-18-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-1,4C-(9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 37 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:103274 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 142:385267

TITLE: Small molecule inhibitors of I $\kappa$ B kinase are selectively toxic for subgroups of diffuse large B-cell lymphoma defined by gene expression profiling

AUTHOR(S): Lam, Lloyd T.; Davis, R. Eric; Pierce, Jackie; Hepperle, Michael; Xu, Yajun; Hottelet, Maria; Nong, Yuhua; Wen, Danyi; Adams, Julian; Dang, Lenny; Staudt, Louis M.

CORPORATE SOURCE: Metabolism Branch, Center for Cancer Research, National Cancer Institute, NIH, Bethesda, MD, USA

SOURCE: Clinical Cancer Research (2005), 11(1), 28-40  
CODEN: CCREF4; ISSN: 1078-0432

PUBLISHER: American Association for Cancer Research

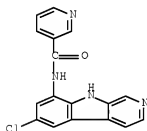
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Constitutive activation of the NF- $\kappa$ R pathway is required for survival of the activated B cell-like (ABC) subgroup of diffuse large B-cell lymphoma (DLBCL). Here we show that a small mol. I $\kappa$ B kinase (IKK) inhibitor, PS-1145, and related compds. are toxic for ABC DLBCL cell lines but not for cell lines derived from the other prevalent form of DLBCL, germinal center B cell-like

DLBCL. Treatment of ABC lines with these inhibitors rapidly induced a series of gene expression changes that were attributable to cessation of constitutive IKK activity, similar to changes induced by acute expression of genetic inhibitors of NF- $\kappa$ B, confirming the effectiveness and specificity of this compound. Before cell death, inhibition of IKK also induced features of apoptosis and an arrest in the G1 phase of the cell cycle. To test further the specificity of this toxicity, an inducible form of NF- $\kappa$ B was created by fusing the p65 NF- $\kappa$ B subunit with the ligand-binding domain of the estrogen receptor (p65-ERD). In the presence of tamoxifen, p65-ERD reversed the toxicity of IKK inhibition and restored expression of many NF- $\kappa$ B target genes. Another subgroup of DLBCL, primary mediastinal B-cell lymphoma (PMBL), also expresses NF- $\kappa$ B target genes, and treatment of a PMBL cell line with an IKK inhibitor was toxic and induced gene expression changes of a distinct group of NF- $\kappa$ B target genes. These studies validate the NF- $\kappa$ B pathway as a promising therapeutic target in ABC DLBCL, PMBL, and other lymphomas that depend on the activity of NF- $\kappa$ B for survival and proliferation.

IT 431898-65-6, PS-1145  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (small mol. IKK kinase inhibitor PS-1145 inhibited lipopolysaccharide-stimulated IL-6, TNF- $\alpha$  production in human peripheral blood mononuclear cell and cytotoxic in ABC DLBCL cell line OCI-Ly3, OCI-Ly10 by NF- $\kappa$ B gene expression)  
 RN 431898-65-6 CAPLUS  
 CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 87 THERE ARE 87 CAPLUS RECORDS THAT CITE THIS RECORD (90 CITINGS)  
 REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 38 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2005:99310 CAPLUS Full-text  
 DOCUMENT NUMBER: 142:191297  
 TITLE: Compositions of a cyclooxygenase-2 selective inhibitor and an IKK inhibitor for the treatment of ischemic-mediated central nervous system disorders or injury  
 INVENTOR(S): Stephenson, Diane T.  
 PATENT ASSIGNEE(S): Pharmacia Corporation, USA  
 SOURCE: PCT Int. Appl., 185 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent

LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005009354	A2	20050203	WO 2004-US22692	20040715
WO 2005009354	A3	20060126		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

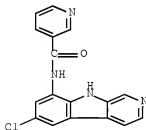
US 20050075341 A1 20050407 US 2004-891913 20040715  
PRIORITY APPLN. INFO.: US 2003-488211P P 20030717  
OTHER SOURCE(S): MARPAT 142:191297

AB The present invention provides compns. and methods for the treatment of ischemic-mediated central nervous system disorders or injuries. More particularly, the invention provides a combination therapy for the treatment of a central nervous system ischemic-mediated disorder or injury comprising the administration to a subject of a cyclooxygenase-2 selective inhibitor and an IKK inhibitor.

IT 431898-65-6, PS-1145  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(compns. of a cyclooxygenase-2 selective inhibitor and an IKK inhibitor for treatment of ischemic-mediated central nervous system disorders or injury)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 39 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2004:902377 CAPLUS Full-text

DOCUMENT NUMBER: 141:379803

TITLE: Preparation of substituted  $\beta$ -carboline Ikb

kinase 2 (IKK-2) inhibitors as potential  
antiinflammatory, immunomodulatory, or anticancer  
agents

INVENTOR(S):

Hepperle, Michael E.; Liu, Julie Fields; Soucy,  
Francois; Ye, Yingchun; Murray, Robert S.; Prakash,  
Raman; Little, Jeremy D.; Castro, Alfredo; Mazdiyasni,  
Hormoz; Fleming, Paul E.; Reynolds, Dominic  
Millennium Pharmaceuticals, Inc., USA  
PCT Int. Appl., 197 pp.  
CODEN: PIXXD2

PATENT ASSIGNEE(S):

SOURCE:

DOCUMENT TYPE:

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

Patent

English

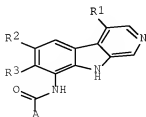
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004092167	A1	20041028	WO 2004-US11080	20040409
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004230952	A1	20041028	AU 2004-230952	20040409
CA 2521300	A1	20041028	CA 2004-2521300	20040409
US 20040235839	A1	20041125	US 2004-821545	20040409
EP 1611134	A1	20060104	EP 2004-759390	20040409
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
BR 2004009263	A	20060328	BR 2004-9263	20040409
CN 1802375	A	20060712	CN 2004-80016017	20040409
JP 2006522824	T	20061005	JP 2006-509889	20040409
IN 2005DN04409	A	20070831	IN 2005-DN4409	20050929
NO 2005004598	A	20051027	NO 2005-4598	20051006
ZA 2005008198	A	20070131	ZA 2005-8198	20051011
PRIORITY APPLN. INFO.:			US 2003-461468P	P 20030409
			WO 2004-US11080	W 20040409

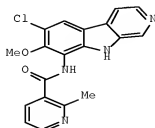
OTHER SOURCE(S):

MARPAT 141:379803

GI



I



II

AB Substituted  $\beta$ -carbolines I [A = (un)substituted pyridinyl, pyrimidinyl, morpholinyl, piperidinyl, piperazinyl, pyrrolidinyl, pyranyl, tetrahydrofuranlyl, cyclohexyl, cyclopentyl, thiomorpholinyl; R1 = H, halo, alkyl, amino, cyano, alkylamino, dialkylamino, alkoxy, aminocarbonyl, trifluoroacetyl amino, aminomethyl; R2 = H, halo, alkyl, F3C; R3 = H, halo, alkyl, haloalkyl, alkoxy, hydroxy, amino, cyano, alkylamino, dialkylamino] such as II are prepared as inhibitors of I $\kappa$ B kinase 2 (IKK-2) for the treatment of inflammatory or immune system diseases such as rheumatoid arthritis, asthma, psoriasis, chronic obstructive pulmonary disease, or cancer (particularly lymphoma). E.g., cyclcondensation of 6-fluorotryptamine hydrochloride and glyoxalic acid monohydrate, decarboxylation of the product in acid followed by neutralization, oxidation with air in refluxing xylenes, chlorination with N-chlorosuccinimide in HCl solution, nitration with sodium nitrate and trifluoroacetic acid, nucleophilic aromatic substitution of the fluoride moiety with sodium methoxide, reduction of the nitro group with palladium and hydrogen, and acylation of the amine with 2-methylnicotinic acid and EDCI in pyridine yields II. Compds. in which ring A is either a 2-substituted-3-pyridinyl moiety or a 4-substituted-5-pyrimidinyl moiety are better inhibitors of IKK-2 than the corresponding unsubstituted heterocycle-containing compds.; compds. in which A is a 4,6,6-trisubstituted-3-morpholinyl moiety are the most effective of those compds. in which ring A is a morpholinyl moiety (no data).

IT 783349-59-7P 783349-60-0P 783349-69-9P  
 783349-70-2P 783349-79-1P 783349-81-5P  
 783349-82-6P 783349-83-7P 783349-84-6P  
 783349-90-6P 783350-38-9P

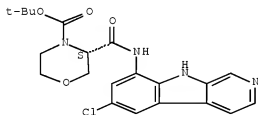
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of substituted  $\beta$ -carboline I $\kappa$ B kinase 2 (IKK-2) inhibitors as potential antiinflammatory, immunomodulatory, or anticancer agents)

RN 783349-59-7 CAPLUS

CN 4-Morpholinecarboxylic acid, 3-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-, 1,1-dimethylethyl ester, (3S)- (CA INDEX NAME)

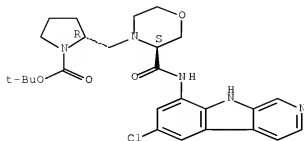
Absolute stereochemistry.



RN 783349-60-0 CAPLUS

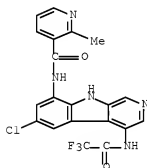
CN 1-Pyrrolidinecarboxylic acid, 2-[[[(3S)-3-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-4-morpholinyl]methyl]-, 1,1-dimethylethyl ester, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



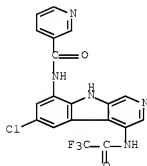
RN 783349-69-9 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-4-[(2,2,2-trifluoroacetyl)amino]-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



RN 783349-70-2 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-4-[(2,2,2-trifluoroacetyl)amino]-9H-pyrido[3,4-b]indol-8-yl]- (CA INDEX NAME)

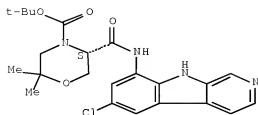


RN 783349-79-1 CAPLUS

CN 4-Morpholinecarboxylic acid, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-, 1,1-dimethylethyl ester, (5S)- (CA INDEX NAME)



Absolute stereochemistry.



RN 783349-81-5 CAPLUS

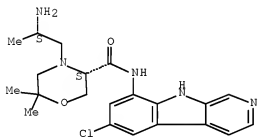
CN 3-Morpholinecarboxamide, 4-[(2S)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)-, 2,2,2-trifluoroacetate (1:3) (CA INDEX NAME)

CM 1

CRN 783349-80-4

CMF C21 H26 Cl N5 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1

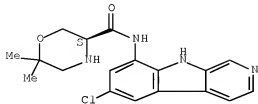
CMF C2 H F3 O2



RN 783349-82-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

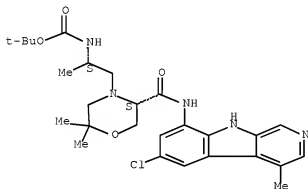


● HCl

RN 783349-83-7 CAPLUS

CN Carbamic acid, [(1S)-2-[(1S)-5-[[6-chloro-4-methyl-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-2,2-dimethyl-4-morpholinyl]-1-methylethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

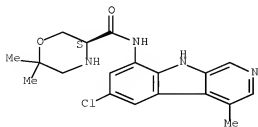
Absolute stereochemistry.



RN 783349-84-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-4-methyl-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

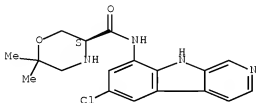


● HCl

RN 783349-90-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

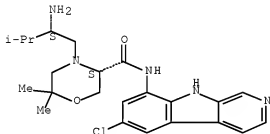
Absolute stereochemistry.



RN 783350-38-9 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-amino-3-methylbutyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



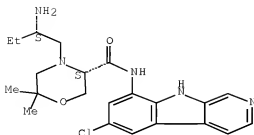
IT 783348-96-9P 783349-93-1P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(invention compound; preparation of substituted  $\beta$ -carboline I $\kappa$ B kinase 2 (IKK-2) inhibitors as potential antiinflammatory, immunomodulatory, or anticancer agents)

RN 783348-96-9 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-aminobutyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

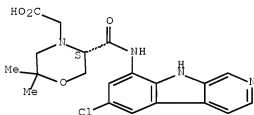
Absolute stereochemistry.



RN 783349-03-1 CAPLUS

CN 4-Morpholineacetic acid, 5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl-, 2,2-dimethyl-, (5S)- (CA INDEX NAME)

Absolute stereochemistry.



IT	783348-36-7P	783348-37-8P	783348-38-9P
	783348-39-0P	783348-40-3P	783348-41-4P
	783348-42-5P	783348-43-6P	783348-44-7P
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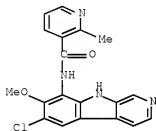
783349-31-5P    783349-32-6P    783349-94-0P  
783349-95-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)

(invention compound; preparation of substituted  $\beta$ -carboline IkB  
kinase 2 (IKK-2) inhibitors as potential antiinflammatory,  
immunomodulatory, or anticancer agents)

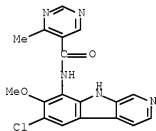
RN 783348-36-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-2-  
methyl- (CA INDEX NAME)



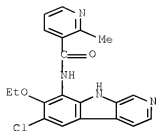
RN 783348-37-8 CAPLUS

CN 5-Pyrimidinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-  
4-methyl- (CA INDEX NAME)



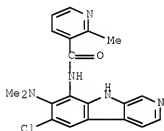
RN 783348-38-9 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-ethoxy-9H-pyrido[3,4-b]indol-8-yl)-2-  
methyl- (CA INDEX NAME)



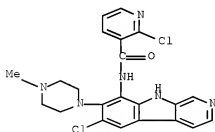
RN 783348-39-0 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-7-(dimethylamino)-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



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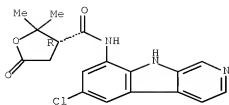
CN 3-Pyridinecarboxamide, 2-chloro-N-[6-chloro-7-(4-methyl-1-piperazinyl)-9H-pyrido[3,4-b]indol-8-yl]- (CA INDEX NAME)



RN 783348-41-4 CAPLUS

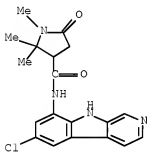
CN 3-Furancarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)tetrahydro-2,2-dimethyl-5-oxo-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 783348-42-5 CAPLUS

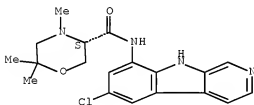
CN 3-Pyrrolidinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-1,2,2-trimethyl-5-oxo- (CA INDEX NAME)



RN 783348-43-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4,6,6-trimethyl-, (3S)- (CA INDEX NAME)

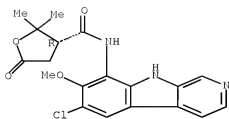
Absolute stereochemistry.



RN 783348-44-7 CAPLUS

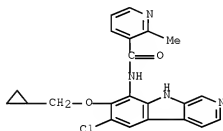
CN 3-Furancarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)tetrahydro-2,2-dimethyl-5-oxo-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



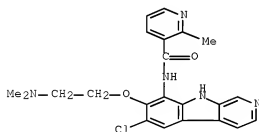
RN 783348-45-8 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-7-(cyclopropylmethoxy)-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



RN 783348-46-9 CAPLUS

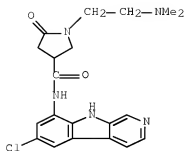
CN 3-Pyridinecarboxamide, N-[6-chloro-7-[2-(dimethylamino)ethoxy]-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



RN 783348-48-1 CAPLUS

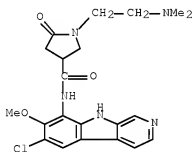
CN 3-Pyrrolidinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-1-[2-(dimethylamino)ethyl]-5-oxo- (CA INDEX NAME)





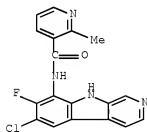
RN 783348-49-2 CAPLUS

CN 3-Pyrrolidinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-1-[2-(dimethylamino)ethyl]-5-oxo- (CA INDEX NAME)



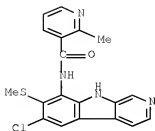
RN 783348-50-5 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-fluoro-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



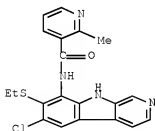
RN 783348-51-6 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-7-(methylthio)-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



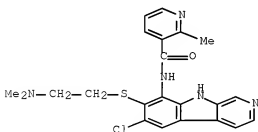
RN 783348-52-7 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-7-(ethylthio)-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



RN 783348-53-8 CAPLUS

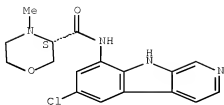
CN 3-Pyridinecarboxamide, N-[6-chloro-7-[[2-(dimethylamino)ethyl]thio]-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



RN 783348-54-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-methyl-, (3S)- (CA INDEX NAME)

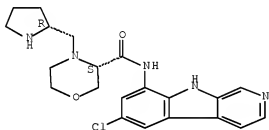
Absolute stereochemistry.



RN 783348-55-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2R)-2-pyrrolidinylmethyl]-, (3S)- (CA INDEX NAME)

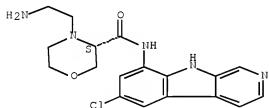
Absolute stereochemistry.



RN 783348-57-2 CAPLUS

CN 3-Morpholinecarboxamide, 4-(2-aminoethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, (3S)- (CA INDEX NAME)

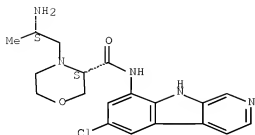
Absolute stereochemistry.



RN 783348-58-3 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, (3S)- (CA INDEX NAME)

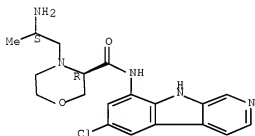
Absolute stereochemistry.



RN 783348-59-4 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, (3R)- (CA INDEX NAME)

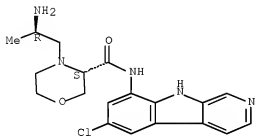
Absolute stereochemistry.



RN 783348-61-8 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2R)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, (3S)- (CA INDEX NAME)

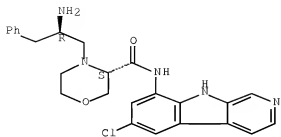
Absolute stereochemistry.



RN 783348-62-9 CAPLUS

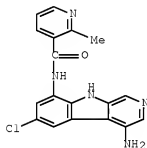
CN 3-Morpholinecarboxamide, 4-[(2R)-2-amino-3-phenylpropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



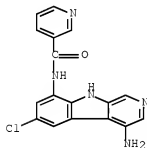
RN 783348-63-0 CAPLUS

CN 3-Pyridinecarboxamide, N-(4-amino-6-chloro-9H-pyrido[3,4-b]indol-8-yl)-2-methyl- (CA INDEX NAME)



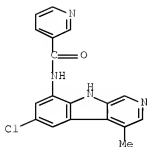
RN 783348-64-1 CAPLUS

CN 3-Pyridinecarboxamide, N-(4-amino-6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



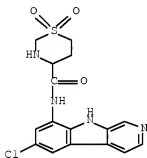
RN 783348-65-2 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-4-methyl-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



RN 783348-66-3 CAPLUS

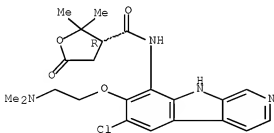
CN 2H-1,3-Thiazine-4-carboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)tetrahydro-, 1,1-dioxide (CA INDEX NAME)



RN 783348-67-4 CAPLUS

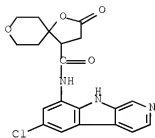
CN 3-Furancarboxamide, N-[6-chloro-7-[2-(dimethylamino)ethoxy]-9H-pyrido[3,4-b]indol-8-yl]tetrahydro-2,2-dimethyl-5-oxo-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



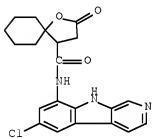
RN 783348-69-6 CAPLUS

CN 1,8-Dioxaspiro[4.5]decane-4-carboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-2-oxo- (CA INDEX NAME)



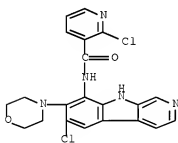
RN 783348-71-0 CAPLUS

CN 1-Oxaspiro[4.5]decane-4-carboxamide,  
N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-2-oxo- (CA INDEX NAME)



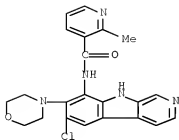
RN 783348-72-1 CAPLUS

CN 3-Pyridinecarboxamide, 2-chloro-N-[6-chloro-7-(4-morpholinyl)-9H-pyrido[3,4-b]indol-8-yl]- (CA INDEX NAME)



RN 783348-73-2 CAPLUS

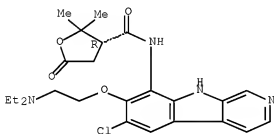
CN 3-Pyridinecarboxamide, N-[6-chloro-7-(4-morpholinyl)-9H-pyrido[3,4-b]indol-8-yl]-2-methyl- (CA INDEX NAME)



RN 783348-74-3 CAPLUS

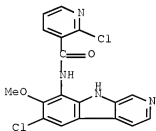
CN 3-Furancarboxamide, N-[6-chloro-7-[2-(diethylamino)ethoxy]-9H-pyrido[3,4-b]indol-8-yl]tetrahydro-2,2-dimethyl-5-oxo-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 783348-75-4 CAPLUS

CN 3-Pyridinecarboxamide, 2-chloro-N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)

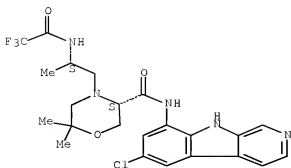


RN 783348-76-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(2,2,2-trifluoroacetyl)amino]propyl]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

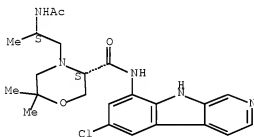




RN 783348-78-7 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-(acetyl)amino]propyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

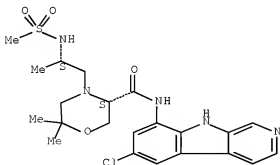
Absolute stereochemistry.



RN 783348-80-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(methanesulfonyl)amino]propyl]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

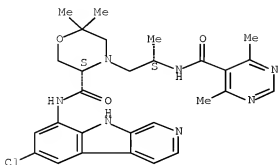


RN 783348-81-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2S)-2-[(4,6-dimethyl-5-pyrimidinyl)carbonyl]amino]propyl]-6,6-dimethyl-, (3S)-

(CA INDEX NAME)

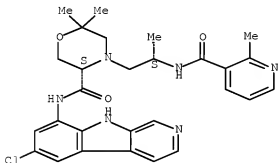
Absolute stereochemistry.



RN 783348-82-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(2-methyl-3-pyridinyl)carbonyl]amino]propyl-, (3S)- (CA INDEX NAME)

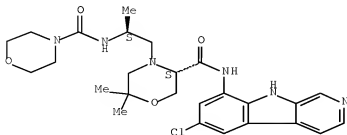
Absolute stereochemistry.



RN 783348-84-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(4-morpholinylcarbonyl)amino]propyl-, (3S)- (CA INDEX NAME)

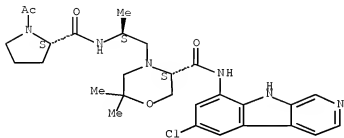
Absolute stereochemistry.



RN 783348-85-6 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-[[[(2S)-1-acetyl-2-pyrrolidinyl]carbonyl]amino]propyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

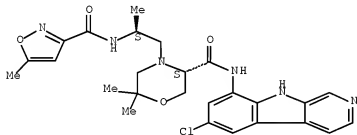
Absolute stereochemistry.



RN 783348-86-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[[[(5-methyl-3-isoxazolyl)carbonyl]amino]propyl]-, (3S)- (CA INDEX NAME)

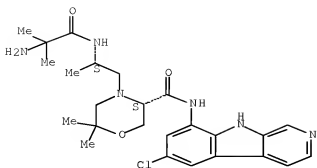
Absolute stereochemistry.



RN 783348-87-8 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-[(2-amino-2-methyl-1-oxopropyl)amino]propyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

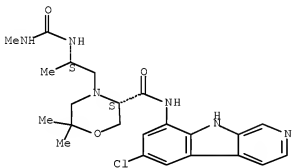
Absolute stereochemistry.



RN 783348-88-9 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(methylamino)carbonyl]amino]propyl]-, (3S)- (CA INDEX NAME)

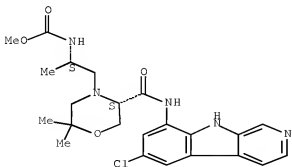
Absolute stereochemistry.



RN 783348-89-0 CAPLUS

CN Carbamic acid, [(1S)-2-[(5S)-5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-2,2-dimethyl-4-morpholinyl]-1-methylethyl]-, methyl ester (9CI) (CA INDEX NAME)

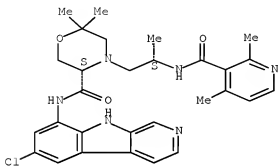
Absolute stereochemistry.



RN 783348-90-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2S)-2-[[ (2,4-dimethyl-3-pyridinyl)carbonyl]amino]propyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

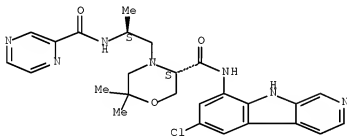
Absolute stereochemistry.



RN 783348-91-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(2-pyrazinylcarbonyl)amino]propyl]-, (3S)- (CA INDEX NAME)

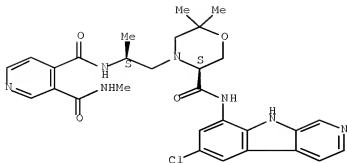
Absolute stereochemistry.



RN 783348-92-5 CAPLUS

CN 3,4-Pyridinedicarboxamide, N4-[(1S)-2-[(5S)-5-[[ (6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-4-morpholinyl]-1-methylethyl]-N3-methyl- (CA INDEX NAME)

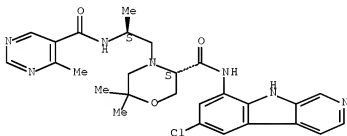
Absolute stereochemistry.



RN 783348-93-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(4-methyl-5-pyrimidinyl)carbonylamino]propyl]-, (3S)- (CA INDEX NAME)

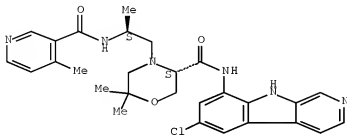
Absolute stereochemistry.



RN 783348-94-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(4-methyl-3-pyridinyl)carbonylamino]propyl]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

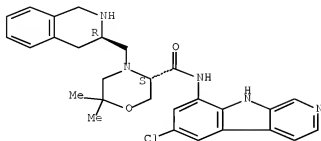


RN 783348-95-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(3R)-1,2,3,4-tetrahydro-3-isoquinolinyl]methyl]-, (3S)- (CA

(INDEX NAME)

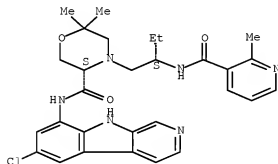
Absolute stereochemistry.



RN 783348-97-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(2-methyl-3-pyridinyl)carbonyl]amino]butyl]-, (3S)- (CA INDEX NAME)

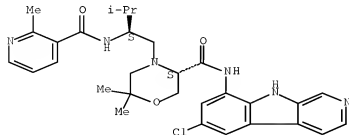
Absolute stereochemistry.



RN 783348-98-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-3-methyl-2-[(2-methyl-3-pyridinyl)carbonyl]amino]butyl]-, (3S)- (CA INDEX NAME)

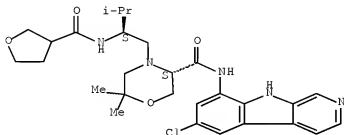
Absolute stereochemistry.



RN 783348-99-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-3-methyl-2-[[tetrahydro-3-furanyl]carbonyl]amino]butyl]-, (3S)- (CA INDEX NAME)

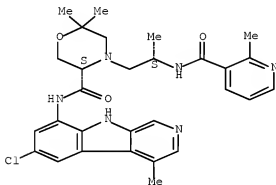
Absolute stereochemistry.



RN 783349-00-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-4-methyl-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[[2-methyl-3-pyridinyl]carbonyl]amino]propyl]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

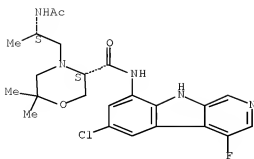


RN 783349-01-9 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-(acetylamino)propyl]-N-(6-chloro-4-fluoro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

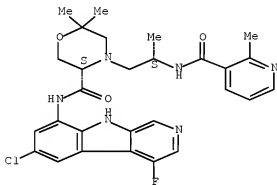




RN 783349-02-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-4-fluoro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[(2-methyl-3-pyridinyl)carbonyl]amino]propyl]-, (3S)- (CA INDEX NAME)

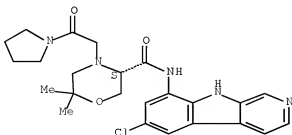
Absolute stereochemistry.



RN 783349-04-2 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(1-pyrrolidinyl)ethyl]-, (3S)- (CA INDEX NAME)

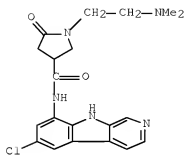
Absolute stereochemistry.



RN 783349-06-4 CAPLUS

CN 3-Pyrrolidinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-1-[2-(2-methyl-2-oxo-1-pyrrolidinyl)ethyl]-, (3S)- (CA INDEX NAME)

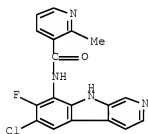
(dimethylamino)ethyl]-5-oxo-, hydrochloride (1:2) (CA INDEX NAME)



●2 HCl

RN 783349-07-5 CAPLUS

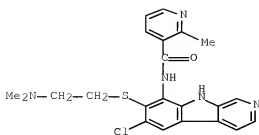
CN 3-Pyridinecarboxamide, N-(6-chloro-7-fluoro-9H-pyrido[3,4-b]indol-8-yl)-2-methyl-, hydrochloride (1:2) (CA INDEX NAME)



●2 HCl

RN 783349-08-6 CAPLUS

CN 3-Pyridinecarboxamide, N-[6-chloro-7-[[2-(dimethylamino)ethyl]thio]-9H-pyrido[3,4-b]indol-8-yl]-2-methyl-, hydrochloride (1:3) (CA INDEX NAME)

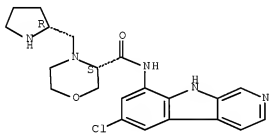


● 3 HCl

RN 783349-09-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[(2R)-2-pyrrolidinylmethyl]-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

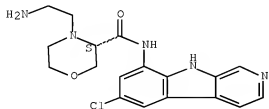


● HCl

RN 783349-10-0 CAPLUS

CN 3-Morpholinecarboxamide, 4-(2-aminoethyl)-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

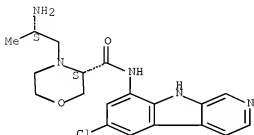


● HCl

RN 783349-11-1 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

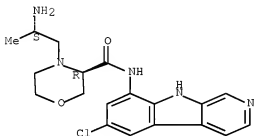


● HCl

RN 783349-12-2 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2S)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, hydrochloride (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.

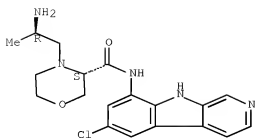


● HCl

RN 783349-13-3 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2R)-2-aminopropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

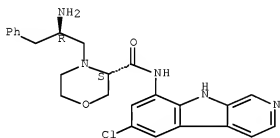


● HCl

RN 783349-14-4 CAPLUS

CN 3-Morpholinecarboxamide, 4-[(2R)-2-amino-3-phenylpropyl]-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

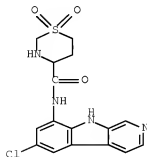
Absolute stereochemistry.



● HCl

RN 783349-15-5 CAPLUS

CN 2H-1,3-Thiazine-4-carboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)tetrahydro-, 1,1-dioxide, hydrochloride (1:2) (CA INDEX NAME)

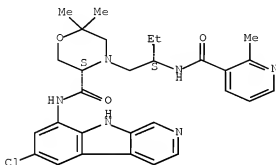


●2 HCl

RN 783349-16-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[(2S)-2-[[2-methyl-3-pyridinyl)carbonyl]amino]butyl]-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

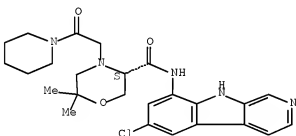


● HCl

RN 783349-17-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(1-piperidinyl)ethyl]-, (3S)- (CA INDEX NAME)

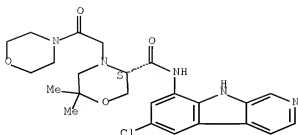
Absolute stereochemistry.



RN 783349-18-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-(4-morpholinyl)-2-oxoethyl]-, (3S)- (CA INDEX NAME)

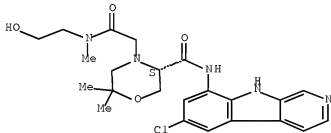
Absolute stereochemistry.



RN 783349-19-9 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-N-(2-hydroxyethyl)-N,2,2-trimethyl-, (5S)- (CA INDEX NAME)

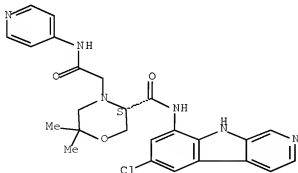
Absolute stereochemistry.



RN 783349-20-2 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-2,2-dimethyl-N-4-pyridinyl-, hydrochloride (1:1), (5S)- (CA INDEX NAME)

Absolute stereochemistry.

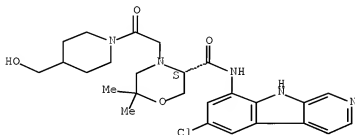


● HCl

RN 783349-21-3 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[4-(hydroxymethyl)-1-piperidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

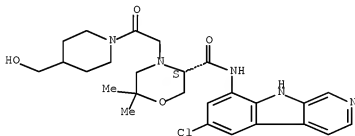
Absolute stereochemistry.



RN 783349-22-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[4-(hydroxymethyl)-1-piperidinyl]-2-oxoethyl]-6,6-dimethyl-, hydrochloride (1:2), (3S)- (CA INDEX NAME)

Absolute stereochemistry.



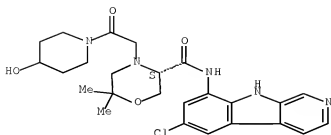
●2 HCl

RN 783349-23-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(4-hydroxy-1-piperidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

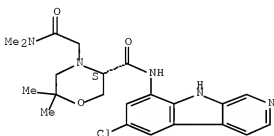




RN 783349-24-6 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N,N,2,2-tetramethyl-, (5S)- (CA INDEX NAME)

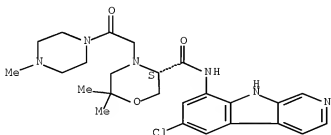
Absolute stereochemistry.



RN 783349-25-7 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-(4-methyl-1-piperazinyl)-2-oxoethyl]-, (3S)- (CA INDEX NAME)

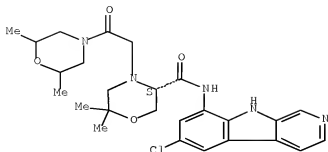
Absolute stereochemistry.



RN 783349-26-8 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(2,6-dimethyl-4-morpholinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

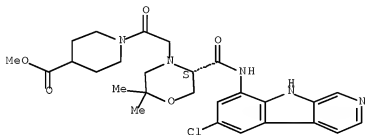
Absolute stereochemistry.



RN 783349-27-9 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-[2-[(5S)-5-[[6-chloro-9H-pyrido[3,4-b]indol-8-yl]amino]carbonyl]-2,2-dimethyl-4-morpholinyl]acetyl-, methyl ester (CA INDEX NAME)

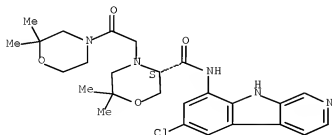
Absolute stereochemistry.



RN 783349-28-0 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(2,2-dimethyl-4-morpholinyl)-2-oxoethyl]-, hydrochloride (1:2), (3S)- (CA INDEX NAME)

Absolute stereochemistry.

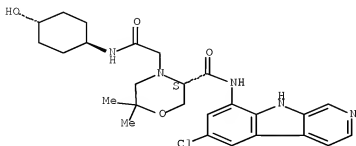


● 2 HCl

RN 783349-29-1 CAPLUS

CN 4-Morpholineacetamide, 5-[[[6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-N-(trans-4-hydroxycyclohexyl)-2,2-dimethyl-, (5S)- (CA INDEX NAME)

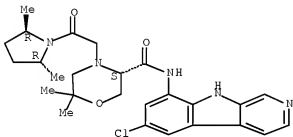
Absolute stereochemistry.



RN 783349-30-4 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[(2R,5R)-2,5-dimethyl-1-pyrrolidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

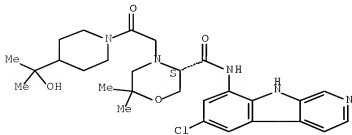
Absolute stereochemistry.



RN 783349-31-5 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-[4-(1-hydroxy-1-methylethyl)-1-piperidinyl]-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

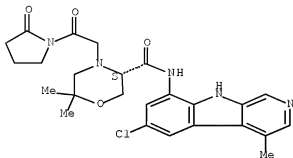
Absolute stereochemistry.



RN 783349-32-6 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-4-methyl-9H-pyrido[3,4-b]indol-8-yl)-6,6-dimethyl-4-[2-oxo-2-(2-oxo-1-pyrrolidinyl)ethyl]-, (3S)- (CA INDEX NAME)

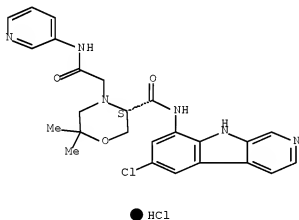
Absolute stereochemistry.



RN 783349-94-0 CAPLUS

CN 4-Morpholineacetamide, 5-[[[(6-chloro-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-2,2-dimethyl-N-3-pyridinyl-, hydrochloride (1:1), (5S)- (CA INDEX NAME)

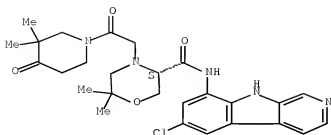
Absolute stereochemistry.



RN 783349-95-1 CAPLUS

CN 3-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-4-[2-(3,3-dimethyl-4-oxo-1-piperidinyl)-2-oxoethyl]-6,6-dimethyl-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)  
 REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 40 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:485903 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 139:207080

TITLE: Novel IKK inhibitors:  $\beta$ -carbolines

AUTHOR(S): Castro, Alfredo C.; Dang, Luan C.; Soucy, Francois; Grenier, Louis; Mazdiyasni, Hormoz; Hottelet, Maria; Parent, Lana; Pien, Christine; Palombella, Vito; Adams, Julian

CORPORATE SOURCE: Millennium Pharmaceuticals Inc., Cambridge, MA, 02139, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2003), 13(14), 2419-2422

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:207080

AB Inhibitors of I $\kappa$ B kinase (IKK) have long been sought as specific regulators of NF- $\kappa$ B. A screening effort of the endogenous IKK complex allowed us to identify 5-bromo-6-methoxy- $\beta$ -carboline as a nonspecific IKK inhibitor. Optimization of this  $\beta$ -carboline natural product derivative resulted in a novel class of selective IKK inhibitors with IC<sub>50</sub>s in the nanomolar range. In addition, we show that one of these  $\beta$ -carboline analogs inhibits the phosphorylation of I $\kappa$ B $\alpha$  and subsequent activation of NF- $\kappa$ B in whole cells, as well as blocking TNF- $\alpha$  release in LPS-challenged mice.

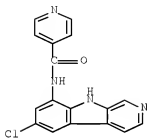
IT 431882-80-3 431887-65-9 431898-65-6  
 596358-98-4

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation and structure-activity relationship of  $\beta$ -carbolines as novel IKK inhibitors)

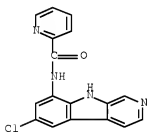
RN 431882-80-3 CAPLUS

CN 4-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



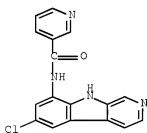
RN 431887-65-9 CAPLUS

CN 2-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



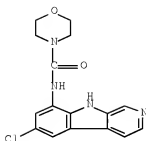
RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



RN 590398-98-4 CAPLUS

CN 4-Morpholinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 82 THERE ARE 82 CAPLUS RECORDS THAT CITE THIS  
RECORD (82 CITINGS)  
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 41 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2003:376638 CAPLUS Full-text  
DOCUMENT NUMBER: 138:379205  
TITLE: Use of inhibitors of IκB kinase for the  
treatment of cancer  
INVENTOR(S): Adams, Julian  
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA  
SOURCE: PCT Int. Appl., 110 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003039545	A2	20030515	WO 2002-US35645	20021106
WO 2003039545	A3	20031030		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002352498	A1	20030519	AU 2002-352498	20021106
EP 1443927	A2	20040811	EP 2002-789471	20021106
EP 1443927	B1	20070110		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2005529842	T	20051006	JP 2003-541836	20021106
US 20050049265	A1	20050303	US 2004-495041	20041012
HK 1069311	A1	20071026	HK 2005-101152	20050212
PRIORITY APPLN. INFO.:				US 2001-344911P
				WO 2002-US35645
				W 20021106

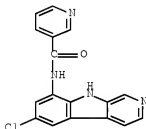
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
OTHER SOURCE(S): MARPAT 138:379205

AB The invention discloses the use of inhibitors of I $\kappa$ B kinase to inhibit the growth of a cancer cell and to treat cancer, including multiple myeloma. Preparation and biol. testing of N-(6-chloro-9H- $\beta$ -carbolin-8-yl)nicotinamide is described.

IT 431898-65-6P  
 RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (I $\kappa$ B kinase inhibitors for treatment of cancer)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 42 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2002:405760 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 137:6093

TITLE: Preparation of substituted beta-carbolines as potential therapeutics in diseases associated with increased I $\kappa$ B kinase activity

INVENTOR(S): Ritzeler, Olaf; Castro, Alfredo; Grenier, Louis; Soucy, Francois; Hancock, Wayne W.; Mazdiyasni, Hormoz; Palombella, Vito; Adams, Julian

PATENT ASSIGNEE(S): Aventis Pharma Deutschland GmbH, Germany

SOURCE: Eur. Pat. Appl., 56 pp.  
 CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1209158	A1	20020529	EP 2000-125169	20001118
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CA 2402549	A1	20010920	CA 2001-2402549	20010228
WO 2001068648	A1	20010920	WO 2001-EP2237	20010228
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,				



LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,  
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,  
ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2001037418 A 20010924 AU 2001-37418 20010228  
BR 2001009161 A 20021126 BR 2001-9161 20010228  
EP 1268477 A1 20030102 EP 2001-909799 20010228

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

HU 2003000894 A2 20030728 HU 2003-894 20010228  
HU 2003000894 A3 20080528  
JP 2003527394 T 20030916 JP 2001-567739 20010228  
EE 200200523 A 20040415 EE 2002-523 20010228  
NZ 521386 A 20040625 NZ 2001-521386 20010228  
RU 2277095 C2 20060527 RU 2002-127682 20010228  
AU 2001237418 B2 20070111 AU 2001-237418 20010228  
CN 100509810 C 20090708 CN 2001-806470 20010228  
IL 151695 A 20090922 IL 2001-151695 20010228  
CZ 301077 B6 20091029 CZ 2002-3031 20010228  
US 20020099068 A1 20020725 US 2001-812785 20010315  
US 6627637 B2 20030930  
MX 2002007981 A 20040405 MX 2002-7981 20020816  
NO 2002004338 A 20021105 NO 2002-4338 20020911  
NO 324248 B1 20070917  
KR 826817 B1 20080502 KR 2002-712072 20020913  
US 20040110759 A1 20040610 US 2003-627978 20030728  
US 7026331 B2 20060411  
US 20060166978 A1 20060727 US 2006-390287 20060328  
US 7348336 B2 20080325

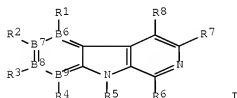
PRIORITY APPLN. INFO.:

EP 2000-105514 A 20000315  
EP 2000-125169 A 20001118  
WO 2001-EP2237 W 20010228  
US 2001-812785 A1 20010315  
US 2003-627978 A1 20030728

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 137:6093

GI



AB Carbolines I (B6, B7, B8, B9 = C, N, no more than 2 N's at the same time; R1-  
R4, R8 = H, halogen, OH, CN, sulfo, NO2, alkoxy, substituted amino,  
substituted amide, CO2H, substituted hydroxy, ketone, ester, aryl, O-aryl,  
substituted aryl, O-substituted aryl, alkyl, substituted alkyl, CF3, CF2CF3;

R5 = H, alkyl, alkyl radical, ketone, sulfo; R6, R7 = H, halogen, OH, Me, O-alkyl, O-substituted alkyl, substituted amino) were prepared as potential therapeutics for diseases associated with increased activity of IκB kinase. Thus, norharmaline was treated with bromine to give 7-bromo-β-carboline (II). II had an IC50 value of 0.4 μM in a IκB kinase in an assay using IκB kinase complex prepared from HeLa S3 cell exts.

IT 431882-81-4P 431886-97-4P 431887-07-9P  
 431887-08-0P 431887-09-1P 431887-46-6P  
 431887-47-7P 431887-51-3P 431887-56-0P  
 431887-65-9P 431887-70-6P 431887-72-8P  
 431888-64-1P 431889-13-9P 431889-21-3P  
 431889-22-4P 431889-28-0P 431889-30-4P  
 431889-36-0P 431889-47-3P 431889-62-3P  
 431889-77-9P 431890-04-9P 431890-66-7P  
 431890-71-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of substituted beta-carbolines as potential therapeutics in diseases associated with increased IκB kinase activity)

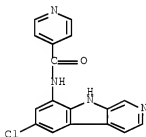
RN 431882-81-4 CAPLUS

CN 4-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 431882-80-3

CMF C17 H11 Cl N4 O



CM 2

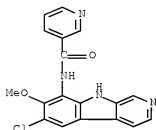
CRN 76-05-1

CMF C2 H3 F3 O2



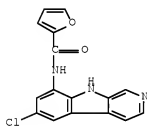
RN 431886-97-4 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-  
(CA INDEX NAME)



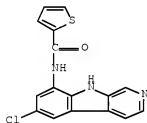
RN 431887-07-9 CAPLUS

CN 2-Furancarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX  
NAME)



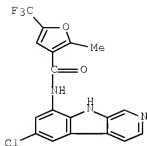
RN 431887-08-0 CAPLUS

CN 2-Thiophenecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA  
INDEX NAME)



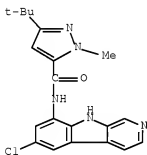
RN 431887-09-1 CAPLUS

CN 3-Furancarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-2-methyl-5-  
(trifluoromethyl)- (CA INDEX NAME)



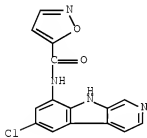
RN 431887-46-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-3-(1,1-dimethylethyl)-1-methyl- (CA INDEX NAME)



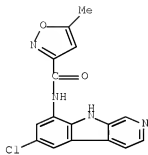
RN 431887-47-7 CAPLUS

CN 5-Isioxazolecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



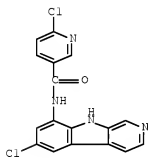
RN 431887-51-3 CAPLUS

CN 3-Isioxazolecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-5-methyl- (CA INDEX NAME)



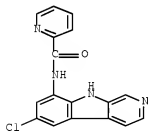
RN 431887-58-0 CAPLUS

CN 3-Pyridinecarboxamide, 6-chloro-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-  
(CA INDEX NAME)



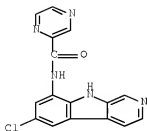
RN 431887-65-9 CAPLUS

CN 2-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX  
NAME)



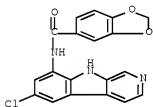
RN 431887-70-6 CAPLUS

CN 2-Pyrazinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX  
NAME)



RN 431887-72-8 CAPLUS

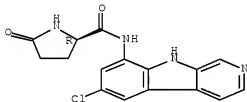
CN 1,3-Benzodioxole-5-carboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-  
(CA INDEX NAME)



RN 431888-64-1 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-5-oxo-,  
(2R)- (CA INDEX NAME)

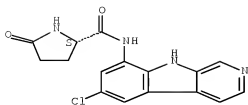
Absolute stereochemistry.



RN 431889-19-9 CAPLUS

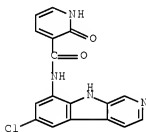
CN 2-Pyrrolidinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-5-oxo-,  
(2S)- (CA INDEX NAME)

Absolute stereochemistry.



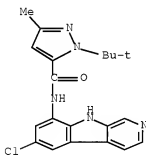
RN 431889-21-3 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-1,2-dihydro-2-oxo- (CA INDEX NAME)



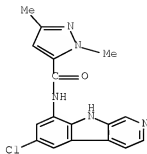
RN 431889-22-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-1-(1,1-dimethylethyl)-3-methyl- (CA INDEX NAME)



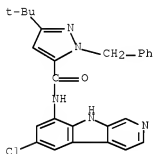
RN 431889-28-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-1,3-dimethyl- (CA INDEX NAME)



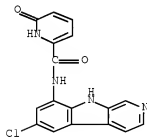
RN 431889-30-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-3-(1,1-dimethylethyl)-1-(phenylmethyl)- (CA INDEX NAME)



RN 431889-36-0 CAPLUS

CN 2-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-1,6-dihydro-6-oxo- (CA INDEX NAME)

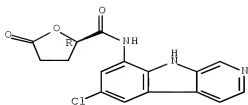


RN 431889-47-3 CAPLUS

CN 2-Furancarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)tetrahydro-5-oxo-, (2R)- (CA INDEX NAME)

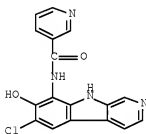
Absolute stereochemistry.





RN 431889-63-3 CAPLUS

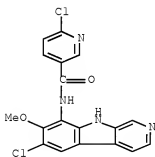
CN 3-Pyridinecarboxamide, N-(6-chloro-7-hydroxy-9H-pyrido[3,4-b]indol-8-yl)-, hydrochloride (1:2) (CA INDEX NAME)



●2 HCl

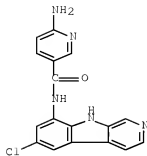
RN 431889-77-9 CAPLUS

CN 3-Pyridinecarboxamide, 6-chloro-N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)

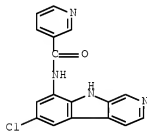


RN 431890-04-9 CAPLUS

CN 3-Pyridinecarboxamide, 6-amino-N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



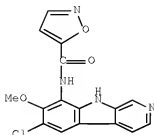
RN 431898-66-7 CAPLUS  
 CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)-,  
 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)  
 CM 1  
 CRN 431898-65-6  
 CMF C17 H11 Cl N4 O



CM 2  
 CRN 76-05-1  
 CMF C2 H F3 O2



RN 431898-71-4 CAPLUS  
 CN 5-Isoxazolecarboxamide, N-(6-chloro-7-methoxy-9H-pyrido[3,4-b]indol-8-yl)-  
 (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
(4 CITINGS)  
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 43 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2002:371242 CAPLUS Full-text

DOCUMENT NUMBER: 137:304403

TITLE: NF- $\kappa$ B as a therapeutic target in multiple  
myeloma

AUTHOR(S): Hideshima, Teru; Chauhan, Dharminder; Richardson,  
Paul; Mitsiades, Constantine; Mitsiades, Nicholas;  
Hayashi, Toshiaki; Munshi, Nikhil; Dang, Lenny;  
Castro, Alfredo; Palombella, Vito; Adams, Julian;  
Anderson, Kenneth C.

CORPORATE SOURCE: Jerome Lipper Multiple Myeloma Center, Dana-Farber  
Cancer Institute and Harvard Medical School, Boston,  
MA, 02115, USA

SOURCE: Journal of Biological Chemistry (2002), 277(19),  
16639-16647

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular  
Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We have shown that thalidomide (Thal) and its immunomodulatory derivs.  
(IMiDs), proteasome inhibitor PS-341, and As203 act directly on multiple  
myeloma (MM) cells and in the bone marrow (BM) milieu to overcome drug  
resistance. Although Thal/IMiDs, PS-341, and As203 inhibit nuclear factor  
(NF)- $\kappa$ B activation, they also have multiple and varied other actions. In this  
study, we therefore specifically address the role of NF- $\kappa$ B blockade in  
mediating anti-MM activity. To characterize the effect of specific NF- $\kappa$ B  
blockade on MM cell growth and survival in vitro, we used an I $\kappa$ B kinase (IKK)  
inhibitor (PS-1145). Our studies demonstrate that PS-1145 and PS-341 block  
TNF $\alpha$ -induced NF- $\kappa$ B activation in a dose- and time-dependent fashion in MM  
cells through inhibition of I $\kappa$ B $\alpha$  phosphorylation and degradation of I $\kappa$ B $\alpha$ ,  
resp. Dexamethasone (Dex), which up-regulates I $\kappa$ B $\alpha$  protein, enhances blockade  
of NF- $\kappa$ B activation by PS-1145. Moreover, PS-1145 blocks the protective  
effect of IL-6 against Dex-induced apoptosis. TNF $\alpha$ -induced intracellular  
adhesion mol. (ICAM)-1 expression on both RPMI8226 and MM.1S cells is also  
inhibited by PS-1145. Moreover, PS-1145 inhibits both IL-6 secretion from  
BMSCs triggered by MM cell adhesion and proliferation of MM cells adherent to  
BMSCs. However, in contrast to PS-341, PS-1145 only partially (20-50%)  
inhibits MM cell proliferation, suggesting that NF- $\kappa$ B blockade cannot account

for all of the anti-MM activity of PS-341. Importantly, however, TNF $\alpha$  induces MM cell toxicity in the presence of PS-1145. These studies demonstrate that specific targeting of NF- $\kappa$ B can overcome the growth and survival advantage conferred both by tumor cell binding to BMSCs and cytokine secretion in the BM milieu. Furthermore, they provide the framework for clin. evaluation of novel MM therapies based upon targeting NF- $\kappa$ B.

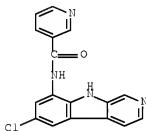
IT 431898-65-6, PS 1145

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(NF- $\kappa$ B as a therapeutic target in multiple myeloma)

RN 431898-65-6 CAPLUS

CN 3-Pyridinecarboxamide, N-(6-chloro-9H-pyrido[3,4-b]indol-8-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 417 THERE ARE 417 CAPLUS RECORDS THAT CITE THIS RECORD (417 CITINGS)

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 44 OF 44 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1991:81654 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 114:81654

ORIGINAL REFERENCE NO.: 114:13937a,13940a

TITLE: Antiparasitic agents. Part XI. Synthesis and anthelmintic activity of 1-substituted 6-/8-[(2-carbomethoxyamino)benzimidazole]-5-carbonylamino-9H-pyrido[3,4-b] indoles

AUTHOR(S): Kumar, Pramod; Agarwal, Shiv K.; Bhakuni, D. S.  
CORPORATE SOURCE: Div. Med. Chem., Cent. Drug Res. Inst., Lucknow, 226 001, India

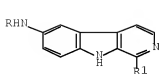
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1990), 29B(11), 1077-80  
CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal

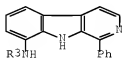
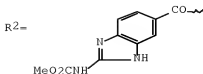
LANGUAGE: English

OTHER SOURCE(S): CASREACT 114:81654

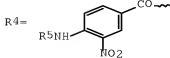
GI



I



II

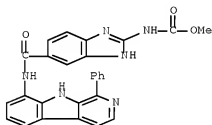


AB 6/8-[(2-Carbomethoxyamino)benzimidazole]-5-carbonylamino-1-substituted-9 H-pyrido [3,4-b] indoles I (R = H, R2, R1 = H) and II (R3 = R2) were synthesized. Evaluation of anthelmintic activity against *Ancylostoma ceylanicum*, *nippostrongylus brasiliensis*, *Hymenolepis nana* and antiamoebic activity against *Entamoeba histolytica* shows that I (R = R4, R1 = H, R5 = H; R = R2, R1 = H) eliminate 81% infection of *A. ceylanicum* and I (R = R4, R1 = H, R5 = Ac) reduces 90% of worm in *N. brasiliensis* infection at 250 mg/kg dose. II (R3 = R4, R5 = H) is found to be active against *E. histolytica* at 31.25 µg/mL concentration

IT 132092-03-6P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation and anthelmintic activity of)

RN 132092-03-6 CAPLUS

CN Carbamic acid, [5-[(1-phenyl-9H-pyrido[3,4-b]indol-8-yl)amino]carbonyl]-1H-benzimidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

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ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF  
LOGOFF? (Y)/N/HOLD:y

STN INTERNATIONAL LOGOFF AT 11:32:49 ON 05 JAN 2010